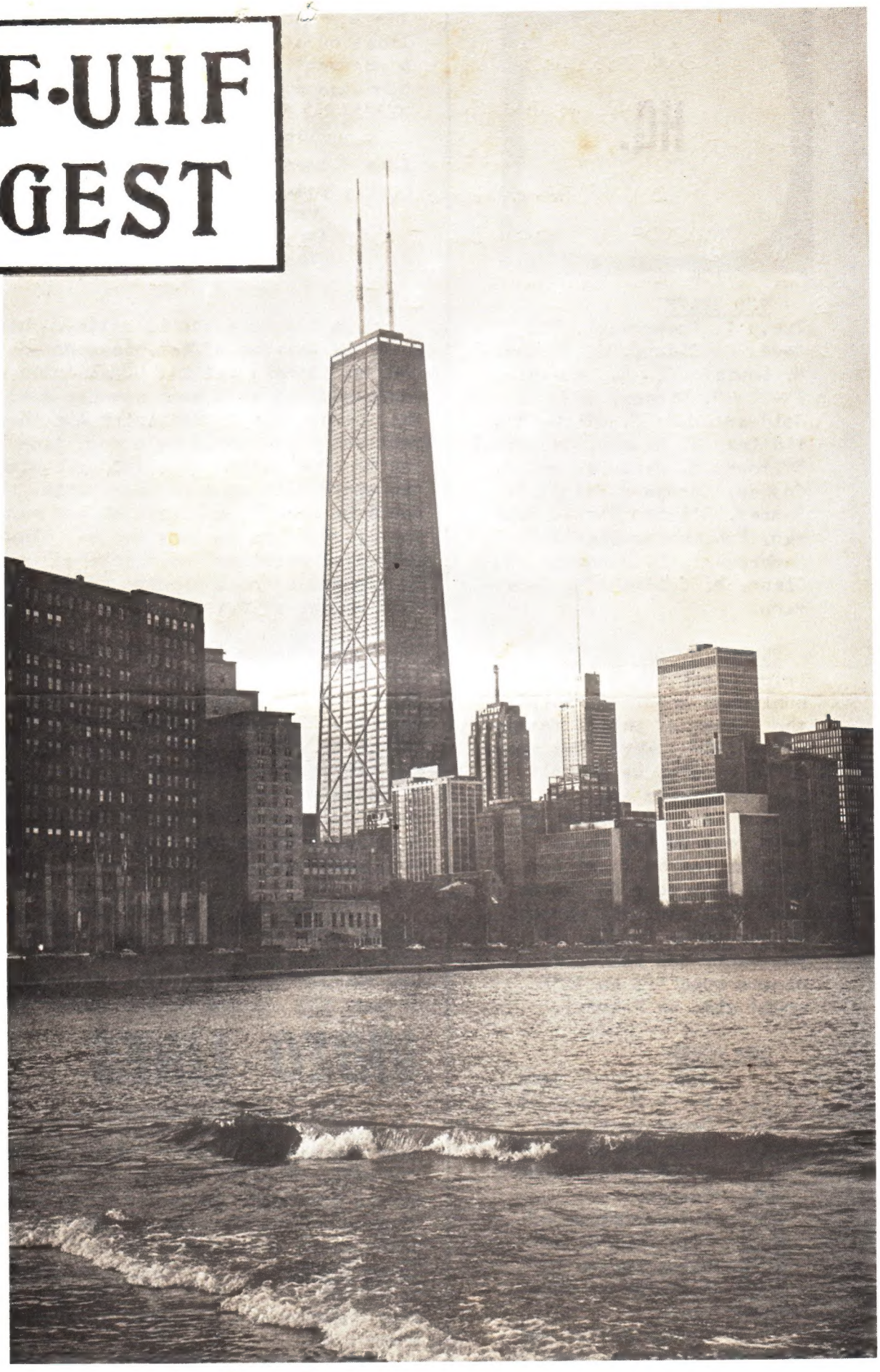
# VHF-UHF DIGEST

ANNIVERSARY

**Special**




The VHF-UHF Digest is the official monthly publication of the Worldwide TV-FM DX Association, a non-profit organization. Address all correspondence and make checks payable to the club at: WTFDA: PO Box 5001, Harbor Station, Milwaukee, Wisconsin 53204 USA

Dues: North America $4.50 one year, $8.50 two years. Add $2 if first class desired. Overseas: $3.50 overseas edition or $5 for regular edition. Information on other rates can be obtained from HQ.

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PHOTOS STILL NEEDED

Unfortunely in 1969 WTFDA published about one third the amount of photos featured in 1968. Why? The answer is simple, we haven't been receiving any. DX photos help our Digest to help you, so how about helping yourself and let us publish your DX photos. Send high contrast photos or negatives to HQ. If you want them returned, please specify; an SASE would also be helpful.

OUR COVER

John Hancock Center - Chicago, IL
Owner-Developer, John Hancock Mutual Life Insurance Company.
A description of "Big John's" antenna system is featured in this issue.
(Cover design and production arrangements by Morrie Goldman.)

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As I'm sure you'll notice, this months cover is printed offset, as opposed to our usual electro-stencil method. Quality is a good deal improved, but at a much steeper cost. We thought that since this issue begins our third year of publishing, it would be a good time to introduce you to this method of printing, which we hope to use eventually on a regular basis. Your comments would be greatly appreciated and can be sent via the survey form in this issue. "The present method of printing" as described in the survey is electro-stencil and not to be confused with this months offset cover.

This being the first VUD of the New Year, and our second anniversary, we would like to thank all those members that have supported us so well. WTFDA is looking to bigger and better things in 1970 with an ever growing membership and more cash in the bank. Plans are also slowly being made for our 1970 convention. Last years convention was a big success and we expect this years to be even better, but more on this in a later issue.

In the coming months the Eastern TV DX column will split into two columns, probably called, "Eastern" and "Midwestern". The split was decided because of the overwhelming size of past EDX columns of the summer months.

# VIDEO LINES

"VAFI" is TV-DXers SINPO

A new signal rating code for TV-DX logging has been prepared by Morrie Goldman. Modeled after the radio DX SINPO system, "VAFI" rates Video signal strength, Audio signal strength, Fading (degree), Interferance (co-channel) on a four point scale as outlined below:

| Video Signal | V | Audio Signal | A |
|---|---|---|---|
| No signal | 0 | No signal | 0 |
| Only detectable | 1 | Only detectable | 1 |
| Heavy snow | 2 | Poor | 2 |
| Moderate snow | 3 | Fair | 3 |
| Light snow | 4 | Good | 4 |
| Snow free | 5 | Excellent | 5 |

(continued on next page.)

| FADING | F | INTERFERANCE (CCI) | I | |
|---|---|---|---|---|
| Auroral-type flutter | 0 | Signal in complete loss | 0 | Decriptions are pretty |
| Deep Modrt. to fast | 1 | Extreme | 1 | much self-explanatory. |
| Deep slow | 2 | Heavy | 2 | Signal rating with VAFI |
| Moderate | 3 | Moderate | 3 | still remains a subjec- |
| Light | 4 | Light | 4 | tive task, but a bit |
| None | 5 | None | 5 | more objective than |
| | | | | "wow" or"pounding in". |

A typical report in one of the TV report columns using a VAFI rating might look like this: "12-3: Tr 2030 WTIU-30 Bloomington, IN(3445N190)" What the last numbers mean is, Moderate snow, Good audio, Light fading and no CCI. The"N" denotes a new station, a "T" would have indicated tentative or an "R", relog. The number after the "N" is the distance of station to reporter. As always, this information is optional, but does make a report more interesting.

WTFDA is still in need of someone to take over as VHF Radio editor. This column should cover reports of stations received above 30MHz, excepting TV and FM stations received in the US TV and FM bands. In the past the column has primarily covered paging station activity and amateur activity in the six meter band as well as covering reports of European channel 1 reception in North America. We would like to have an editor with some experience in this area, but an active beginner may be considered as well. The column would appear monthly or bi-monthly, depending on support, and WTFDA would supply stencils to the editor at no charge. Sound interesting? If it does, drop a card and we'll fill you in further.

If you're not really interested in VHF and you'd still like to give us a hand, write anyway. There are plenty of areas where we can use assistance.

Our TV station list has been selling very fast and there is literally only a few left. As another list (updated) will probably not be ready for some months to come, we advise you to get in your order now. Remember, this is really the only present station listing for television designed for the DXer. Price to members is only 50¢. Non-members, 75¢.

Additional report forms for TV and FM column reporting are available at no charge by sending a SASE to Hq. Use of these forms makes reporting easyer for you and easyer for your editor.

We would like to remind you that WTFDA's"Station Break" ad column (appearing in this issue) helps pay added club expenses to improve the quality of your bulletin. "Station Break" ads are really quite a bargin, as many WTFDAers have already found out. Cost is low, and best of all they work!

Recent club publicity, mostly from Gary Olson's Communications Handbook article, has netted us a number of new members this month, (see this months"DX Mailbag") and many requests for sample copies of the VUD. In past months, WTFDA has been mentioned in the following publications: Popular Electronics Com. Handbook, Practical TV, Electronics Illustrated, TV Guide, Science & Electronics (Radio TV Exp.), World Radio TV Handbook, CQ, QST and a number of club bulletins. Several shortwave broadcast stations have also described WTFDA in their listeners programs. We have even received a small amount of publicity from a couple of newspapers! WTFDA thanks those persons and companies responsible for their help in building our membership.

The usual Christmas mail rush slowed down delivery of last months VUD as much as three weeks in some areas. Third class mail was not the only lot to suffer, as most First Class mail arrived at least a few days late. We hope things are closer to normal this month. If for some reason, your December issue was lost in the chaos at the post office, let us know. Including 25¢ to cover costs would be appreciated.

Our statistics editor, Glenn Hauser, has moved courtesy of the Air Force to Thailand.Remember since this is a US base, postage is still the same as in the US.

# VHF HARMONICS

Glenn Hauser
Box 1466
APO San Francisco 96288

This is a special VHF Radio section, which may reappear on an irregular basis. Many of you know of my interest in harmonics--I've devoted a lot of time and effort to DXing them, until now only on the bands below 31 MHz, except for an occasional FMer showing up in the high TV band. I happen to feel that DXing harmonics is a worthy end in itself, since it's hard to find any better "DX"--from the standpoint of low power and unintentional transmission. For those of you interested in an exhaustive treatment of the subject--on shortwave--I refer you to my article in the 1969-70 "How to Listen to the World."

What have harmonics to do with VHF, now. I've noticed quite a few of them reported, along with paging and F2 TV activity. I hope those of you with proper VHF gear will take an interest in logging harmonics pro suo bono, but even if you don't care much for this DX specialty, you may as well use them to supplement pagers as indicators of F2 activity. Chances are, if you hear programmed audio transmitted on AM, above 27 MHz, you've got a harmonic! The handy chart below enables you to tell instantly where a harmonic on a given frequency is likely to be coming from. Note that there is quite a bit of overlap, and that harmonics tend to bunch around 30, 35 and 42 MHz. Harmonics higher than the 7th order are possible, but rare. For simplicity, I omit them here. The list extends on up to 108 MHz, just in case you get an Es opening from Cuba, or VOA sites in North Carolina or California. With each kHz frequency range are given the fundamental meter band and harmonic number.

| | | | | | |
|---|---|---|---|---|---|
| 28500-30360 | 60 x 6 | 45300-46350 | 19 x 3 | 70800-71600 | 16 x 4 |
| 29750-31000 | 49 x 5 | 46800-47900 | 25 x 4 | 75500-77250 | 19 x 5 |
| 30200-30900 | 19 x 2 | 47500-48875 | 31 x 5 | 76800-78300 | 11 x 3 |
| 33250-35420 | 60 x 7 | 49700-51100 | 41 x 7 | 81900-83825 | 25 x 7 |
| 35100-35925 | 25 x 3 | 51200-52200 | 11 x 2 | 85800-87000 | 13 x 4 |
| 35400-35800 | 16 x 2 | 53100-53700 | 16 x 3 | 88500-89500 | 16 x 5 |
| 35500-36500 | 41 x 5 | 57000-58650 | 31 x 6 | 90600-92700 | 19 x 6 |
| 35700-37200 | 49 x 6 | 58500-59875 | 25 x 5 | 102400-104400 | 11 x 4 |
| 38000-39100 | 31 x 4 | 60400-61800 | 19 x 4 | 106200-107400 | 16 x 6 |
| 41650-43400 | 49 x 7 | 64350-65250 | 13 x 3 | 105700-108150 | 19 x 7 |
| 42600-43800 | 41 x 6 | 66500-68425 | 31 x 7 | 107250-108750 | 13 x 5 |
| 42900-43500 | 13 x 2 | 70200-71850 | 25 x 6 | | |

Be careful not to confuse real harmonics with internal receiver mixing in the presence of overload. E.g. in Enid OK, KCRC-96.9 produces WWV on 106.9.

The VOA relay by BBC in Woofferton, England is a known harmonic producer on shortwave; it seems reasonable to expect it on 30-50 too, providing a good check on the MUF. Here are Woofferton's to look for, sked valid until 1 March. All are 250-kw except 6040 which is 500.

| | | | | |
|---|---|---|---|---|
| 30200=6040x5 | 35130=11710x3 | 36240=6040x6 | 43020=7170x6 | 45615=15205x3 |
| 30390=15195x2 | 35710=17855x2 | 36960=6160x6 | " =21510x2 | 46840=11710x4 |
| 30410=15205x2 | 35790=5965x6 | 41755=5965x7 | 43120=6160x7 | 50190=7170x7 |
| 30800=6160x5 | 35850=7170x7 | 42280=6040x7 | 45585=15195x3 | |

21510: 1230-1600 GMT, to USSR in Soviet languages
17855: 1200-1600 GMT, to South Asia and Mid East, including English at 1400-1600
15205: 1130-1700 GMT, to South Asia and Mid East, English 1400-1700
15195: 1300-1500 GMT, to USSR in Georgian, Armenian
11710: 1500-1900 GMT, to USSR in Ukrainian, Russian
7170: 1630-2230 GMT, to Eastern Europe in their languages
6160: 1700-2230 GMT, to Eastern Europe in their languages
6040: 1530-2215 GMT, to Europe, entirely in English
5965: 1800-2230 GMT, to Europe and Mid East, in East European languages, Greek

Please let me know of your success in DXing VHF harmonics--not just Woofferton!

# STATISTICS

Glenn Hauser, Editor
Box 1466
APO San Francisco 96288

JANUARY 1969

CHANNEL 4 TROPO TVDX RECORDS

| Call | Location | Miles | DXer, Location | Comments |
|---|---|---|---|---|
| WRBL | Columbus GA (AL) | 370 | Ed Bourgeois, Morco LA | now ch 3 |
| KVOA | Tucson AZ | 230 | Glenn Hauser, Langmuir Lab NM | |
| KARK | Little Rock AR | 640 | Jim Himes, Joes CO | |
| KRCA | Los Angeles CA | 200 | Robert Cooper, Fresno CA | now KNBC |
| KRON | San Francisco CA | 310 | Charles Wood, Ashland OR | |
| KCA | Denver CO | 105 | Bill Heusmann, Buford WY | |
| WRC | Washington DC | 930 | Bedford Brown, Hot Springs AR | |
| WJXT | Jacksonville FL | 635 | Ray Foster, Monroe LA | |
| WTVJ | Miami FL | 1150 | Pat Dyer, San Antonio TX | |
| WHBF | Rock Island IL | 530 | Frank Wheeler, Erie PA | |
| WTTV | Bloomington IN | 355 | Bill Draeb, Kewaunee WI | |
| KTIV | Sioux City IA | 455 | Bill Draeb, Kewaunee WI | |
| WWL | New Orleans LA | 635 | Glenn Hauser, Enid OK | |
| WBZ | Boston MA | 530 | Carlon Howington, Uniontown OH | |
| WTOM | Cheboygan MI | 420 | David Swanson, Romulus NY | |
| WWJ | Detroit MI | 285 | Jim Pizzi, Rochester NY | |
| WCCO | Minneapolis MN | 640 | Glenn Hauser, Enid OK | |
| WCBI | Columbus MS | 270 | Clarence Rareshide, New Orleans LA | |
| WDAF | Kansas City MO | 515 | Bill Draeb, Kewaunee WI | |
| KMOX | Saint Louis MO | 495 | Carlon Howington, Uniontown OH | |
| KXLF | Butte MT | 170 | Gordon Simkin, Idaho Falls ID | |
| KHTL | Superior NB | 255 | Glenn Hauser, Enid OK | |
| KOB | Albuquerque NM | 95 | Glenn Hauser, Langmuir Lab NM | |
| WBEN | Buffalo NY | 450 | Bill Draeb, Kewaunee WI | |
| WNBC | New York NY | 510 | Frank Merrill, Milan MI | |
| WUNC | Chapel Hill NC | 220 | John Owen Broomall, Augusta GA | |
| KXJB | Valley City ND | 200 | Fred McCormack, Des Lacs ND | |
| WLWC | Columbus OH | 385 | Bill Draeb, Kewaunee WI | |
| WKY | Oklahoma City OK | 370 | Ray Foster, Monroe LA | |
| KPIC | Roseburg OR | 200 | Doris Johnson, Longview WA | |
| WTAE | Pittsburgh PA | 460 | Dave Janowiak, Milwaukee WI | |
| WCIV | Charleston SC | 455 | Jeff Kadet, Bethesda MD | |
| WFBC | Greenville SC | 570 | Ed Bourgeois, Morco LA | |
| WSM | Nashville TN | 610 | Glenn Hauser, Enid OK | |
| KGNC | Amarillo TX | 235 | Glenn Hauser, Enid OK | |
| KRLD | Dallas TX | 530 | B. J. Bingham, Festus MO | |
| KROD | El Paso TX | 150 | Glenn Hauser, Langmuir Lab NM | |
| KGBT | Harlingen TX | 1050 | Don Ruland, Holly Hill FL | |
| KPAC | Port Arthur TX | 490 | Glenn Hauser, Enid OK | now KJAC |
| WOAI | San Antonio TX | 1040 | Don Ruland, Holly Hill FL | |
| KTVT | Salt Lake City UT | 200 | Gordon Simkin, Idaho Falls ID | now KCPX |
| KOMO | Seattle WA | 370 | Charles Wood, Ashland OR | |
| KXLY | Spokane WA | 390 | Gordon Simkin, Idaho Falls ID | |
| WOAY | Oak Hill WV | 240 | Bill Meers, Lagrange KY | |
| WTMJ | Milwaukee WI | 915 | Clarence Rareshide, New Orleans LA | |
| CHSJ | Saint John, NB | 130 | Tom Sundstrom, Bernard ME | |
| "CBOT" | Ottawa Ont | 230 | David Kanaar Buffalo NY | |
| CFCM | Quebec PQ | 115 | Ghislain Girard, Arvida PQ | |
| WAPA | San Juan PR | 80 | Robert Cooper, Fredriksted VI | |

A note on rank: Apologies to those whose reports were not received in time--due to my move to Thailand, mail delays, Xmas rush, etc Even my own Enid logs are still in transit! But firstclass mail can reach me in 2 days...and you must update your report!

FM RANK

| Rank | Stations | States | Provinces | Countries | Dxer |
|---|---|---|---|---|---|
| 1 | 494 | 35 | 4 | 3 | John Ebeling, Bloomington MN |
| 2 | 439 | 22+DC | 2 | 2 | Bill Bens, Cincinnati OH |
| 3 | 196 | 25 | 3 | 3 | Glenn Hauser, Albuquerque NM |
| - | 187 | 11 | 0 | 1 | John Ebeling, Addison IL |
| 4 | 114 | 11 | 2 | 2 | Bob Astmann, Kenmore NY |
| - | 62 | 8 | 0 | 1 | Glenn Hauser, Madison WI |
| - | 55 | 18 | 1 | 3 | Fred Nordquist, G.S.M.R. MI |
| - | 55 | 13 | 0 | 1 | Glenn Hauser, Denver CO |
| - | 54 | 7 | 0 | 1 | Fred Nordquist, Tulsa OK |
| - | 31 | 9 | 0 | 1 | Fred Nordquist, El Paso TX |

As you can see from Nordquist's secondary totals, I will carry over those which have no chance of changing since the last listing.

ADDITIONS AND REVISIONS TO TVDX RECORDS

| | | | | | |
|---|---|---|---|---|---|
| 3 | WJMN | Escanaba MI | 90 | Bill Draeb, Kewaunee WI | new |
| 5 | WSYR | Syracuse NY | 45 | Robert Cooper, Ithaca NY | new; now ch 3 |
| 7 | WDEL | Wilmington DE | 195 | Robert Cooper, Ithaca NY | now WHYY-12 NJ; new |
| 8 | KØ8AU | Emery County UT | 20 | Bill Heusmann, mobile | KUTV-2 |
| | KØ8CM | Salina UT | 0 | Bill Heusmann, mobile | KUTV-2 |
| | CMRA | Santa Clara Cuba | 850 | Ed Bourgeois, Norco LA | (CMAB) new |
| 9 | KTRE | Lufkin TX | 290 | Clarence Rareshide, New Orleans LA | now |
| 10 | K1ØBJ | Silt CO | 5 | Bill Heusmann, mobile | KRIL-5 |
| | K1ØAZ | Emery County UT | 20 | Bill Heusmann, mobile | KCPX-4 |
| 11 | K11DI | Glenwood Springs CO | 5 | Bill Heusmann, mobile | KCPX-4 |
| | K11DD | Green River UT | 15 | Bill Heusmann, mobile | KCPX-4 |
| 12 | K12FY | Big Laramie Valley etc WY | 10 | Bill Heusmann, mobile | KLZ-7 |
| | CMFF | Jatibonico Cuba | 260 | Carlon Howington, Homestead FL | (CMAB) new |
| 13 | K13DP | Coalville UT | 0 | Bill Heusmann, mobile | KSL-5 |
| | K13DI | Emery UT | 0 | Bill Heusmann, mobile | KSL-5 |
| | K13DB | Green River UT | 15 | Bill Heusmann, mobile | KSL-5 |
| 15 | WBRA | Roanoke VA | 185 | Larry Vogt, Springfield VA | new |
| 19 | KLOC | Modesto CA | 175 | Dennis Smith, Sequoia Crest CA | Smith 170 |
| 21 | KDAS | Hanford CA | 55 | Dennis Smith, Sequoia Crest CA | (error) Smith 60 |
| 24 | WJVU | Morgantown WV | 110 | Jim Chrislip, Youngstown OH | new |
| 32 | KNTV | San Francisco CA | 235 | Dennis Smith, Sequoia Crest CA | Smith 225 |
| 38 | KS2ABR | Chicago IL | 20 | Bill Pagel, Glen Ellyn IL | Stryker TIL |
| 46 | KMST | Monterey CA | 165 | Dennis Smith, Sequoia Crest CA | Smith 145 |
| 70 | K7ØAT | Ely NV | 0 | Bill Heusmann, mobile | KSL-5 |
| | K70AY | Lovelock NV | 5 | Bill Heusmann, mobile | KOLO-8 |
| 71 | K71AI | Evanston WY | 0 | Bill Heusmann, mobile | KSL-5 |
| 74 | K74CU | Iowa City IA | 5 | Bill Heusmann, mobile | WMT-2 |
| 75 | K75BE | Elko NV | 10 | Bill Heusmann, mobile | KOLO-8 |
| | K75AG | Evanston WY | 0 | Bill Heusmann, mobile | KCPX-4 |
| 77 | K77AJ | Delta UT | 5 | Bill Heusmann, Delta UT | KCPX-4 |
| 79 | K79BL | Iowa City IA | 5 | Bill Heusmann, mobile | WOC-6 |
| | K79AC | Evanston WY | 0 | Bill Heusmann, mobile | KUTV-2 |
| 80 | K8ØAI | Ely NV | 0 | Bill Heusmann, mobile | KCPX-4 |
| 83 | K83BB | Castledale UT | 10 | Bill Heusmann, mobile | KUED-7 |

And that's it for another month. I might point out that I do not encourage cross country travel <u>solely</u> for the purpose of logging translators, hi! Seriously, tho, these <u>are</u> records, and perhaps could be logged 50 or 100 miles away under proper conditions. Some of the 15s and 20s perhaps approach being "DX". Publication of these is a result of our one criterion--distance...and who is to say where local stops and DX begins??

Until the next, 73 de Glenn

# FIVE MILLION WATTS FROM 1 4 5 0 FEET?

by: Morrie Goldman

The prospects of a Chicago television station having a coverage area larger than any other in history may be stronger than you might think. The reason is an ultramodern 1450' structure known as the John Hancock B uilding. At its top is an antenna system capable of housing antennas for up to ten stations and a maximum power of five megawatts Effective Radiated Power.

Whether any of Hancock's three UHF stations (two of which are not presently operating) will run a full five million watts ERP, is somewhat of a question at this point. Origionally, it was rumored that WFLD-TV, channel 32, would boost power to the FCC's maximum upon moving to Big John; they didn't. However a power increase to two million watts, or twice WFLD's previous power, was effected some weeks after the big move. This is the reason that early reports from DXers indicated one million watt WCIU-TV to be stronger than tall channel 32. In fact, in the early weeks after WFLD's October 1, 1969 Hancock sign on, they were running at a reduced power, well under one megawatt.

But what of those two UHFers due to join WFLD in the near future? Well, WSNS-TV, channel 44 also origionally was slated for the magic number of five million, but Chief Engineer Charles R. Buzzard now says that when Harriscope Broadcasting first takes to the air in April of 1970, power will be one half that figure. A fifty thousand watt Ampex transmitter and an RCA polygon antenna enclosed in a fiberglass radome will develope the predicted two and one half million watts of ERP. Just where did the five million figure come from here? It came from a statement made by WSNS, that they would operate with "maximum power". Needless to say, this could be interpreted in several ways, but the implication is maximum legal power.

As for "The Voice of Labor"'s WCFL-TV, channel 38, little information is seemingly available, other than their target is sometime in late 1970. We can only guess at their plans.

If prospects of a station atop Big John ever reaching five million watts look dismal, consider it again, they're not. Why not? To answer this we'd better look a bit more closely at the reasons why WFLD and WSNS chose to make their "top of Chicago" debut at a lower than planned ERP.

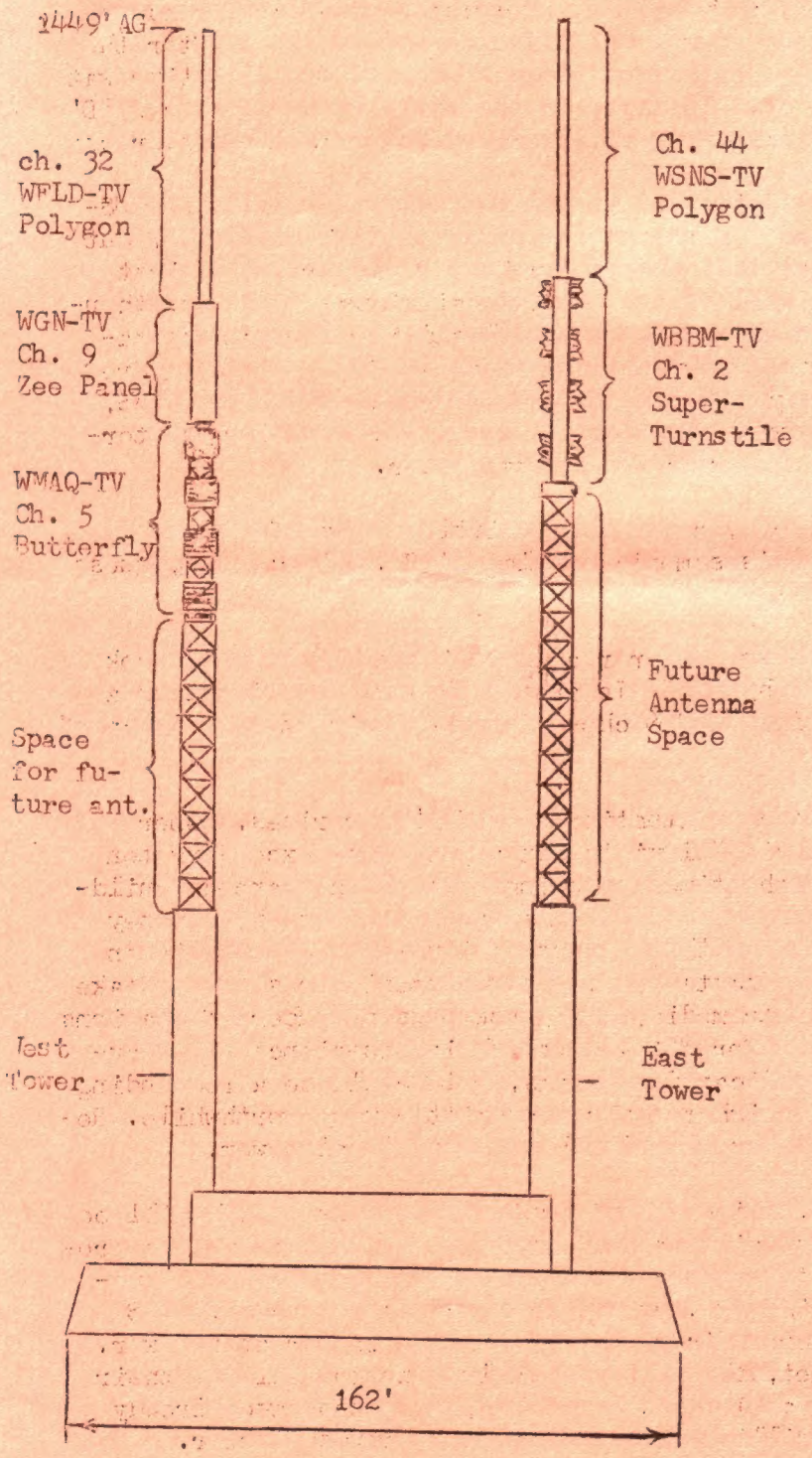
WFLD-TV is, or was, in a rather sticky situation. Field Enterprises, owner of WFLD-TV, had sold the station to Metromedia Television at a price tag exceeding ten million dollars in March of 1969 and at the time of moving to the John Hancock Building, the sale had not yet received FCC approval. WFLD had proven not to be a money maker for Field and here arose a chance to sell out, not to invest more funds in an endeavor that was no longer financially advantageous. If Metromedia does indeed take over, a new picture will be in focus. Metromedia, which now owns a number of stations scattered over the US could turn the tide for WFLD. With their experience in managing television stations and producing syndicated programs, WFLD could be a resounding success, thus making the investment in a higher power transmitter very worthwhile. Remember, WFLD's antenna is already designed to handle the maximum legal power.

Harriscope Broadcasting's WSNS-TV, "Video 44", is quite different. WSNS will be starting from scratch in Chicago and has said that they have not yet decided on a programing format. Once again let's resort to a rumor; that rumor is that WSNS may become Chicago's pay TV outlet. If this is true, and pay TV becomes a success, WSNS might just be in the market for a greater audience, therefore needing greater power. Whether WSNS goes the pay TV route or not, they will probably want to feel out their chances for success before investing in a big gun. Remember, they too have already invested in an antenna capable of five million watts, Effective Radiated Power.

In conclusion, there is probably a very good chance we'll be socked with a five megawatt signal from Chicago's Big John, but not for at least two years to come.

# BIG JOHN'S ANTENNAS

by: Morrie Goldman WA9RAQ




To put it mildly, designing an antenna system to accommodate ten television stations and auxiliary antennas for three of those stations is a big job. And to do it using only two towers to support the array is an almost unbelieveable task, but RCA managed to complete such a system atop Chicago's John Hancock Building not a day late.

The John Hancock building, (featured on this months cover) stands one hundred stories above Chicagoland; 1,449' from base to tower-top. If Chicago had not had an FAA 1,450'maximum structure height limit, Big John would have been built to edge out New York City's Empire State Building.

Presently operating from the John Hancock Building are stations, WBBM-2, WMAQ-5, WGN-9 and WFLD-32. Due to take to the air in April of 1970 is television station number five for Big John, WSNS-44. There is additional space for five more television antennas and room for a third, small, tower fostering some of the city's FM stations to make the move as well.

Due to an FCC rule meaning, in effect, "mre height, above a given point equals power must be reduced", (This ru le pretty much leaves UHF alone, only restricting VHF.) , WBBM-2, WMAQ-5 and WGN-9 were forced to lower power. In the case of WBBM, the drop was from 100 KW ERP to 35.4 KW ERP.

The added height gained by WFLD's move to Big John boosted their channel 32 coverage area to the outskirts of Milwaukee's south side. However part of this increase is due to a 3 db power increase by WFLD.

Not shown in the illustration at left is WCFl, channel 38's antenna. It is expected to be an RCA Vee Zee panel.

The RCA polygon antennas used by WFLD-32 and WSNS-44 have a unique feature. That is, each of the antennas five faces can be controlled in magnitude of radiated signal.

# EUROPEAN SCENE

ROGER BUNNEY
TRELAWNE CUPERNHAM LANE
ROMSEY, HANTS, SO5 8JH
ENGLAND



TO CONTINUE OUR TOUR OF VARIOUS TV NETWORKS OF EUROPE, THIS TIME I WILL GIVE THE ESSENTIAL INFORMATION ON THE SWISS NETWORK AND ITS LOW BAND STATIONS. THIS COUNTRY USES CCIR CHANNELS WITH NEGATIVE-GOING VIDEO AND FM SOUND. AT THE PRESENT TIME, THERE ARE 3 HIGH POWERED XMTTRS LIKELY TO BE RECEIVED BY SKIP PROPAGATION:

| | | | | | |
|---|---|---|---|---|---|
| BANTIGER | E2 | 100KW, HORIZ. | NEAR BERNE | GERMAN NETWORK | B |
| UETLIBERG | E3 | 100KW, HORIZ. | NEAR ZURICH | GERMAN NETWORK | U |
| LA DOLE | E4 | 100KW, HORIZ. | NEAR GENEVA | FRENCH NETWORK | D |

THE TEST CARD IN USE IS A DISTICTIVE ONE, WITH A WHITE CROSS AT THE TOP AND AN EVEN MORE DISTINCTIVE BLACK AND WHITE STRIPE AT THE RIGHT OF THE INNER CIRCLE. BELOW THE WHITE CROSS ARE THE LETTERS "PTT" WHICH STAND FOR "ENTERPRISES DES POSTES, TELEPHONES ET TELEGRAPHES." AT THE UPPER RIGHT IS A LETTER IN A SQUARE, REPRESENTING THE XMTTR. THE LETTERS B, U, AND D ABOVE INDICATE THE T/C LETTERS USED FOR THESE 3 MAIN XMTTRS; Z INDICATES THE SIGNAL ORIGINATES IN ZURICH, AND Q INDICATES A TEST TRANSMISSION. THE TEST CARD IS RADIATED FROM ABOUT 0830 LOCAL TIME AND CONTINUES UNTIL REGULAR PROGRAMMING BEGINS. JUST BEFORE THE PROGRAMS, A CAPTION IS RADIATED DETAILING THE TIMES OF THE EVENING PROGRAMS. SUNDAY PROGRAMS: 1500-2300. MON THRU SAT PROGRAMS: 1830-2300.

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THE ITALIAN TV NETWORK HAS TWO CHANNELS IN BAND 1, ALTHO THEY DIFFER FROM OTHER COUNTRIES IN THAT THEY USE SOMEWHAT DIFFERENT FREQUENCIES AND USE LETTER DESIGNATIONS INSTEAD OF NUMBERS: CHANNEL A 53.75MHz, AUDIO 59.25 MHz.
CHANNEL B 62.25 MHz AUDIO 67.75 MHz.

| | | | | | TESTCARD: |
|---|---|---|---|---|---|
| RADIOTELEVIZIONE ITALIANA: | MONTE CACCIA | IA | 30KW, HORIZ. | NEAR BARI | 14 |
| | MONTE CAMMARATA | IA | 30KW, HORIZ. | IN SICILY | 23 |
| | MONTE NERONE | IA | 30KW, HORIZ. | 80 MI SE OF FLORENCE | 31 |
| | MONTE PENICE | IB | 100KW, HORIZ. | NEAR MILAN | 3 |
| | MONTE FAITO | IB | 53KW, HORIZ. | NEAR NAPLES | 11 |

ALL THESE STATIONS USE THE SAME TEST CARD, BUT CLOSER EXAMINATION WILL SHOW A SMALL NUMBER IN THE UPPER RIGHT HAND CIRCLE INDICATING THE ORIGINATING TRANSMITTER.

APPROXIMATE PROGRAM TIMES ARE AS FOLLOWS, CENTRAL EUROPEAN TIME:
MON THRU FRI: 1800-2300 SATURDAY: 1600-2330 SUNDAY: 1000-2330

DURING SCHOOL SEASON, THERE ARE PROGRAMS IN THE MORNING AND AFTERNOON, BEGINNING ABOUT 0900. JUST BEFORE THIS AND WHENEVER ELSE THERE IS NO PROGRAMMING, TEST CARD IS RADIATED.

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BORDERING ON ITALY AND FACING IT ACROSS THE ADRIATIC IS YUGOSLAVIA. THERE ARE 4 TRANSMITTERS IN BAND 1, USING CCIR STANDARDS:

| | | | | | |
|---|---|---|---|---|---|
| KAPAONIK | E3 | 50KW. | PSUNJ | E4 | 100KW. |
| KUM | E3 | 50KW. | LABASTICA | E4 | 15KW. |

TEST SIGNALS ARE RADIATED FROM ABOUT 0900 LOCAL TIME. THESE CONSIST OF A CHECKERBOARD OR A TEST BAR; THIS LATTER HAS AN ID "STUDIO ZAGREB" OR POSSIBLY ANOTHER STUDIO CENTRE. IN 1967 THE RETMA CARD WAS USED WITH "RTV LJUBLJANA" WRITTEN IN SMALL LETTERS IN THE UPPER PART OF THE CIRCLE. MANY ID CAPTIONS CARRY THE NAME OF THE ORIGINATING STUDIO WHICH MAY BE BEOGRAD, LJUBLJANA, SARAJEVO, SKOPJE, OR ZAGREB. THEY ALSO HAVE A HABIT OF USING NUMEROUS PATTERNS AND OFTEN CHANGING THEM, MUCH TO THE CONFUSION OF DXERS.
PROGRAM TIMES, CET: MON THRU FRI: 1700-2300. SATURDAY: 0940-1450, 1700-2300.
SUNDAY: 0925-1230, 1600-2300.

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NEXT MONTH WE SHALL CONCLUDE THIS SERIES WITH THE REMAINING COUNTRIES OF EASTERN EUROPE THAT WE HAVEN'T COVERED IN PREVIOUS ISSUES OF THE VHF- UHF DIGEST. I BELIEVE WE HAVE ALREADY EXPLAINED EUROVISION, THE WESTERN EUROPEAN INTERNATIONAL TV NETWORK, AND NOW WE SHALL EXPLAIN INTERVISION, THE EASTERN EUROPEAN EQUIVALENT. PROGRAMS IN THE NETWORK HAVE SOME SUITABLE CAPTION INDICATING THE ORIGINATING COUNTRY SUCH AS THE KREMLIN FOR THE USSR. INTERVISION IN ENGLISH AND THE LANGUAGE OF THE ORIGINATING COUNTRY ARE INCLUDED IN THE CAPTION. PROGRAMS FED TO WESTERN EUROPE GO THRU BROCKEN, DDR FROM POLAND, HELSINKI FROM USSR, OR VIENNA FROM CZECHOSLOVAKIA. THE EUROVISION SYMBOL IS A LARGE ORNATE STAR IN THE CENTER OF WHICH ARE THE LETTERS OF THE ORIGINATING COUNTRY'S NETWORK SUCH AS BBC, RAI, ORTF, RTP, RTB, TVE OR WHATEVER. PRICIPAL SWITCHING CENTER IS IN BRUSSELS, BELGIUM FOR INTERNATIONAL EXCHANGES OF NEWS, SPORTS, ETC.

10

# EUROPEAN SCENE

ROGER BUNNEY
TRELAWNE, CUPERNHAM LANE
ROMSEY, HANTS, SO5 8JH
ENGLAND, UNITED KINGDOM

BEGINNING WITH THIS ISSUE, I WILL REVIEW IN EACH VUD THE PERIOD FROM THE LAST 2 WEEKS OF ONE MONTH AND THE FIRST 2 WEEKS OF THE NEXT MONTH. THIS WILL ALLOW EARLIER PUBLICATION OF THE MONTH'S DX. PREVOIUSLY I CONCLUDED AT THE END OF EACH MONTH AND JUST MISSED THE PUBLISHING DEADLINE LEAVING THE NEWS TO STAGNATE FOR ANOTHER 4 WEEKS.

CONDITIONS ON THE WHOLE HVAVE BEEN RATHER POOR. THERE HAS BEEN LITTLE EVIDENCE OF ANY Es OF A PROLONGED NATURE IN THE PERIOD 1 SEPTEMBER TO 15 OCTOBER. TROPS HOWEVER WAS "UP". (MORE ON THIS LATER.) DUE TO TVE, SPAIN, HAVING AN EARLY MORNING PROGRAM CONSISTING OF EXERCISES AND BODY DEVELOPMENT, THEY OPEN UP AT 0630 GMT WITH 15 MINUTES OF EBU TEST PATTERN FOLLOWED BY 15 MINUTES OF TEST CARD. THIS HAS ENABLED THE RECEPTION HERE OF VARIOUS LOW BAND STATIONS VIA MS BEFORE MY LOCALS OPEN UP AT ABOUT 0700 GMT. MOST FAVORABLE CHANNEL HERE IS E3 WITH SOME SORT OS SIGNAL DAILY VIA MS.

THE ONLY Es ACTIVITY DURING THIS 6 WEEK PERIOD WAS AS FOOLOWS:

1 SEPTEMBER: NORWAY E2 WITH PROGRAMS 2022-2040, BRITISH SUMMER TIME.

3 SEPTEMBER: USSR CH. 01 2157 PROGRAM-CAPTION MINSK; POLAND 01 2228 WITH PROGRAMS.

TROPS ACTIVITY INITIALLLY OPENED UP ON 20 SEPTEMBER. UNFORTUNATELY, ROMSEY LIES IN A VALLEY 75 FT ASL WITH HEAVY SHEILDING IN THE BEST DIRECTIONS SO I CAN NEVER TAKE FULL ADVANTAGE OF TROPS. I ONLY MANAGED TO RECEIVE HOLLLAND E4 MOST OF THE 20TH WITH TEST CARD, AND PROGRAMMING BEGINNING AT 1840. REPORTS FROM MY FRIEND AT BUCKINGHAM SHOW GOOD TROPS, ESPECIALLLY UHF, WITH WEST GERMANS AND EVEN SOME EAST GERMANS ON A FEW UHF CHANNELS: DEQUEDE 31, SCHWERIN 29 AT 550 MILES. ON THE NORTH SEA PATH UP TO SCANDINAVIA HE GOT SEVERAL SWEDISH UHF STATIONS UP TO 760 MILES ON CHANNELS 23 & 24. MANY SWEDISH UHF STATIONS RECEIVED THIS TIME AND DURING LAST SEASON STILL AREN'T LISTED BY THE EBU. SWEDEN OPENED TO CHANNEL 48 ON THIS RECENT OPENING.

OUR SECOND SPELL OF TROPS ACTIVITY WAS FROM 9-11 OCTOBER. AGAIN MANY WEST GERMANS, UP TP CH. 58, WERE SEEN IN BUCKINGHAM. I WAS MORE FORTUNATE DURING THIS OPENING AND ACTUALLY LOGGED SEVERAL NEW STATIONS, ALTHOUGH THEY WERE UK STATIONS. ON 11 OCTOBER IN THE EARLY AM, I GOT WEST GERMANS ON E6, E7, AND E9 BETWEEN 0802 AND 0830, BST. MANY FRENCH UHF STATIONS WERE IN, ALSO. SINCE THEN CX HAVE SLUMPED TO A NEW LOW.

AT THE BEGINNING OF OCTOBER, TWO NEW UHF TRANSMITTERS OPENED AT CRYSTAL PALACE (LONDON), CARRYING COMMERCIAL ITV ON 23 WHICH WILL BE IN COLOR FROM NOV. 15TH, AND BBC-1 ON CH. 26. BOTH WILL DUPLICATE THEIR 405 LINE SERVICES FROM VHF ON 625 LINE-UHF. THESE ARE IN ADDITION TO BBC-2 ALREADY ON CHAN. 33 FOR SOME TIME PAST. AT 500 KW AND 75 MILES, CH. 26 IS THE BEST SIGNAL, BEING IN MOST OF THE DAY HERE; THE OTHER 2 ARE NOTHING. THIS ILLUSTRATES MY GOOD DX LOCATION. HI.

SPECULATION STILL SURROUNDS THE PROPOSED PIRATE STATION "CAROLINE TV." LATE NEWS HERE INDICATES THAT THE STATION WILL OPEN IN MARCH OR APRIL, 1970 FROM A SUPER CONSTELLATION BACKED UP BY A RESERVE PLANE. THEY WILL FLY AT 20, 000 FT, 12 MILES OFF THE EAST COAST OF ENGLAND. COVERAGE IS EXPECTED AS FAR WEST AS BRISTOL, (SW COAST). PROGRAMS WILL GO OUT 6PM-3AM LOCAL TIME. THE PLANES WILL BE BASED IN SPAIN, FRANCE OR HOLLAND. THE BACKERS OF THE SHEME SEEM PRETTY CONFIDENT AND HAVE INVESTED MUCH MONEY IN IT. PIRATE-PIONEER RONAN O RAHILLY AND GEORGE DRUMMOND ARE PRICIPALS INVOLVED. THE GPO (BRITISH POST OFFICE IS THE UK'S FCC) HAS APPARENTLY POINTED OUT THAT IT IS ILLEGAL TO WATCH THIS AIRBORNE STATION'S PROGRAMS, IF THEY EVER BEGIN PROGRAMMING.

OVER THE PAST YEAR, A NUMBER OF MANUFACTURERES HAVE PRODUCED VERY WIDE-BAND AMPLIFIERS, COVERING 40-960 MHz. THEY USE 2 TRANSISTORS AND CLAIM A MINIMUM GAIN OF 13 DB WITH A NOISE FIGURE OF 7 DB. WITH THE INCREASING NUMBER OF UHF STATIONS IN THE UK, THESE AMPS ARE BEING WIDELY USED IN POOR SIGNAL AREAS. WITH ITV BEGINNING THEIR UHF SERVICE NOW, SALES OF THESE PRE-AMPS AND COLOR TVS ARE EXPECTED TO INCREASE. ONE MANUFACTURER, J-BEAM, HAS INTRODUCED A NEW AERIAL WHICH HAS DIRECTORS IN AN X- FORM AS VIEWED FROM THE END, WITH SHORT HORIZONTAL ELEMENTS ON THE ENDS OF THE X'S. PERFORMANCE IS CLAIMED TO BE BETTER THAN ANYTHING ELSE NOW ON THE MARKET.

COLOR TV SALES HAVE BEEN DROPPING I HEAR. RENTAL OF TVS HAS ALWAYS BEEN POPULAR HERE, BUT COLOR TV RENTERS BY LAW MUST NOW PUT DOWN A YEAR'S RENTAL FEE IN ABVANCE AND THIS REPRESENTS THE PRICE OF A PURCHASED NEW B&W SET. ITS AMUSING THAT AT WORK WE ARE TRANSMITTING IN COLOR BUT ONLY A HANDFUL OF EMPLOYEES HAVE COLOR TV RECEIVERS. THE COMPANY HAS NOT ENCOURAGED ITS EMPLOYEES TO OBTAIN SETS, SO FEW HAVE. IT IS A VERY LARGE INVESTMENT OF COURSE, AS PRICES ARE MUCH HIGHER THAN IN AMERICA, REMINISCENT OF THE PRICES ON COLOR TV WHEN IT BEGAN IN AMERICA SOME 15 OR SO YEARS AGO. 73, ROGER.

# TV — FM

# DX BIBLIOGRAPHY

Earlier this year, Gary Olson presented a list of magazine articles and publications pertaining to TV and FM DXing. Since then, thought was given to expand the list, so effort was made to make it as complete as possible. This resulted in the assembly of some 550 entries on file cards, which in turn were used to make the following listings.

Sources include as many different publications (magazines, books, etc.) as possible, though inclusion of appropriate articles from newspapers and smaller regional-area magazines was not attempted. Besides those previously found by Gary and myself, I covered the Readers Guide to Periodical Literature (in most libraries) as well as simply exploring the shelves of the big libraries of the Santa Barbara Public and University of California at Santa Barbara, Los Angeles, and Berkeley. I have added to my own collection of past articles by going through available back-issue magazines. You, too, may wish to explore libraries in your area to read of these interesting bits of past DXing, and possibly to arrange with the libraries to purchase or make copies of these articles. You can go to bookstores which feature old magazines to add to your collection, also. For instance, there are a number of used-magazine stores in New York City. Wayne Plunkett has told of a terrific bookstore on Woodward Ave. in Detroit. I have added to my collection through Castro Books on University Ave. in Berkeley which has a fantastically huge old-magazine supply.

Though much expanded from before and the most complete of its subject ever attempted, it still isn't considered complete. Some issues weren't accessable from above sources. If you know of any additions, please inform Gary or me. It was sometimes difficult in drawing the line to determine if appropriate to this list. Along with articles dealing directly with television and FM DXing (including early picture transmissions and high-fidelity radio experiments), I have included station lists, photography of TV identifications, and mentions of TV and FM DX in other articles and columns.

Magazines below are in different groups though this could also vary with personal interpretation. I have grouped them as follows: General and non-electronic, Scientific review, Electronic hobby and repair, Ham and broadcast industry, Extensive listener columns and articles, Technical journals, Books, pamphlets and publications. These are for North American sources. Then, in a European section, there are Periodicals, and Books, pamphlets and publications.

The European listing is small and not nearly as complete as the North American list. It includes everything that I know about which isn't a great deal. No attempt was made to include station listings from the periodicals though there are some. Perhaps a British or Continental DXer could set out on a more complete project for that side of the Atlantic.

Now following, in a series covering several pages (and possibly more than one month of VUD), somewhat in the manner of an annotated bibliography, is the listing of known book and magazine articles pertaining to DX of television and FM broadcasting.

General and non-electronic

Business Week

13 Mar 1954 Local Business: "KLEE Lingers On" The KLEE-TV mystery.
2 Apr 1955 Production: "TV Relay Leaps 200 Miles" UHF tropo scatter relay.

The New Yorker

24 Jun 1967 Notes and Comment: Impression of patterns on in-between VHF TV channels in New York City. Not really DXing but somewhat related.

Time 2 Jan 1956 Science: "Sunspot Programs" High sunspots, TV skip predicted (F2)
24 Feb 1958 Television and Radio: "On the Bounce" TV-DXer George Cole, Rhodesia

TV Guide

22-28 Jan 1955 "Why Freak Reception"
23-29 Jul 1955 "Hey Ump, Throw the Bull Out"
10-16 Nov 1956 "The DX Bug" by Bob Cooper
11-17 Jul 1959 "The Strange Language of the Television DXers" by King Schafer
5-11 Oct 1968 "Taking Color Pictures from a TV Screen" TV color photos.
2- 8 Aug 1969 "TUNE YOUR SET CAREFULLY, AND YOU MAY EVEN GET HOLLAND," HAUSER.

These four articles are on the general nature of TV-DXing and its propagations.

Scientific review

Electronics

1 Apr 1957 Electrons at Work: "Anomalous Propagation" Trans-Atlantic F2 BBC TV

Science

30 Sep 1938 Science News: "Radio Wave-Lengths" Explanation of Es on VHF (TV).

Science Digest

May 1955 "Watch Out for Foreign 'Ghosts' on TV" High sunspots, TV F2 skip predict
Sep 1955 "200-Mile TV Transmission" UHF tropo scatter experiment results.
Jan 1956 "Next Five Years: Watch Out for TV Ghosts" Sunspots, TV F2 skip pred.
Dec 1956 "'Round-the-World TV" VHF & UHF scatter explanation, potential TV use.
Apr 1957 "The Sun Gets Spottier" Radio blackouts, BBC TV London F2 skip.

Science News Letter

1 Oct 1938 "Obtain 2,500-Mile Reception on Television Wavelengths" Es explan.
26 Feb 1955 "TV From Abroad?" Sunspots, F2 skip, probable TV interference.
2 Apr 1955 "Direct TV Signals Sent Over Horizon" UHF tropo scatter results.
26 Nov 1955 "Global TV Possible Now" VHF-UHF scatter explanation, future TV use
9 Mar 1957 "See Foreign Television" Sunspots, F2 skip, probable TV interference
13 Apr 1957 "Mountains Improve Television Reception" Signal diffraction.

Electronic hobby and repair

Electron (Canada)

Jun 1965 "SW Lingo" Regular column. This month, TV-DX nature and propagations.
Jun 1967 "Other People's Mail" (correcpondence) TV-DX letter by Mark Lewis.
Jun 1967 "SW Lingo" Regular column. TV-FM DXing of Wayne Plunkett.

Electronics Illustrated

Aug 1959 "TV Over the Horizon" by Tom Hidley Humorous account of TV-DXing mood.
Nov 1961 "Europe's Top TV DXer" TV-DXer Jacques Herreman, Belgium.

Popular Electronics

Jun 1956 "DX TV Reception Makes New Hobby" Bob Cooper TV-DX propagations, DXers
Jan 1957 "London-New York TV in '57?" TV F2 skip, RCA engineers look for BBC TV.
Jan 1958 "International Television DX'ing" DXers Palmer, Australia & Tammet, Estonia
Apr 1959 "DX'ing With Your TV Set" DX in Cuba; eds. mistakenly attrib. to sunspots
Jun 1960 "DX'ing on TV" by King Schafer Lively discussion of props., equipment.
Jul 1966 "Riding the TV DX Trail" by Gary Olson, who said eds. butchered article.
Jul 1966 "Photographing TV Screen" Short filler following TV DX article.

Popular Mechanics

Nov 1954 Radio-Television Electronics: "DX Television-Station Reception Verified with Screen Photos" TV-DX and photographing explanations.
Jun 1955 "TV Crosses the Horizon" UHF scatter installation btw. Florida & Cuba.

Popular Science

Jul 1952 "Kansas TV Fan Gets Both Coasts" TV-DXer Gene Smith.

Radio-TV Experimenter

Spring 1960 "Tune In on the World" DX history; DXing on MW, SW, FM, TV; clubs.
Spring 1960 "Custom-Build Your TV and FM Aerials" Measurements for TV-FM yagis.
Fall 1960 "The Hidden DX" Techniques for DXing FM subcarriers.
All R-TV Exp. issues have "White's Radio Log," AM-SW-FM-TV station lists, having taken it over from its independent days in the 1950's.

Ham and broadcast industry

Radio (changed to Audio in mid-1940's and became a high-fidelity magazine)

Sep 1927 "Radio Television" Bell Labs TV experiments by wire and air on MW.
Mar 1928 "Radio Pictures" Still pictures transmitted on standard MW stations.
Nov 1928 "Radio Picture Transmission and Reception" Still pix from airplane.
Dec 1928 "Radio Picture Transmission and Reception" Description of television reception methods of that day, including station list.
May 1929 "Radio Commission Issues Television Permits" Stations on new exp'l TV channels on MW above standard broadcast band; also another article in "Radio Picture Transmission and Reception" series in issue
Aug 1929 "List of Visual Broadcasting Stations" U.S. television station list. Other television-activity articles in same issue.
Oct 1929 Further television-activity articles and news.
(There was no access to issues from June 1930 through 1935.)
Feb & Apr 1937 "28 and 56 Mc. Activity"; Oct 1937 & Jan Apr May 1938 & Jan 1939 "56 Mc.," regular VHF ham column, these issues with TV F2 skip news.
Dec 1940 "Commercial FM Receives FCC Approval" New regular radio service, list.
Dec 1940 "Weak Signal FM Reception"
Feb 1941 "Aurora U.H.F. Propagation"
Apr 1941 "The Coincidence of U.H.F. Fading"
May 1942 "U.H.F."
Four detailed articles describing distant reception and propagations on old 42-50-MHz FM band: tropo, Es aurora, meteor bursts. F2 mentioned

CQ (began in Jan 1945 with ham emphasis, replacing Radio which turned to hi-fi engrg.)

"VHF-UHF" regular ham column has mentions of TV & FM DX (F2, Es, tropo, aurora) in these issues:

1947- Feb Mar Apr May Dec.
1948- Jul Sep.
1949- Jan Feb Mar May Jun Jul Aug.
1952- Mar Nov.
1958- Jan Mar.
1962- Aug.

Aug 1953 "DX and the Sun" Detailed article on approaching sunspot peak.
Mar Jun 1956 "The Sunspot Story: Cycle 19" Detailed; TV F2 skip discussed.
Apr 1959 "Transatlantic Video DX" Europe video F2 in N. America w/ proper gear.
Apr May Jun 1961 "The Sunspot Story, Cycle 19: The Declining Years" Det. article

QST (ARRL ham magazine)

"On the Ultra/Very Highs" regular ham column (named "The World Above 50 Mc." after mid-40s) has TV & FM DX mentions (F2, Es, tropo, aurora, TE), sometimes detailed, in these issues:

1942- Apr Jun Jul Aug Oct.
1943- Feb Aug Oct.
1946- Jan.
1947- Aug Dec.
1948- Jan Dec.
1949- Dec.
1950- Mar Dec.
1951- Aug Sep Nov Dec.
1952- Jan Sep.
1953- Nov.
1954- Jul Aug.
1955- Apr Aug.
1956- Nov Dec.
1957- Jan Feb Mar Nov.
1958- Jan Oct Nov Dec.
1959- Apr Dec.
1960- Jan Apr May Jun Jul Dec.
1961- Jan.
1963- Aug.
1967- Feb Mar Apr Jun Jul Sep.
1968- Oct Dec.
1969- Apr Jun Aug Sep.

(There may be mentions in other issues, missed while scanning quickly. Check this column every month!)

Aug 1945 "Strays" Item about FM Es on 42-50 band.
Jan 1948 "Any DX Today?" British article about trans-Atlantic ham and TV F2.
Feb 1958 "Using TV Signals in VHF Propagation Studies" Props; Euro, NA, SA lists.
Nov 1958 "Sporadic-E Skip on 200 Mc?" by Bob Cooper High-MUF Es study on TV-DX
Apr 1963 "TE Propagation—VHF Discovery Extraordinary" and "How Does TE Work?" Two articles. Ham and TV TE work; relation to F2 skip.

FM (short-lived mag., eventually renamed FM-TV, and lastly FM-TV Radio Communication)
U.S. FM station lists: Dec 1941 (and possibly before), Feb 1942, May Oct 1943, Mar May Aug 1944, Feb Oct 1947, Sep 1951.
Jul-Aug 1942 "Long-Distance FM Reception" Summer FM (42-50) Es at Tulsa, Okla.
Mar 1945 "Discussion of Proposed FM Frequencies" by EH Armstrong Prop(F2, Es, tr
May 1945 "Memorandum on Sporadic E Interference" by EH Armstrong 42-50 & 100MHz
Nov 1948 "Directory of TV Markets" U.S. television station list.
Mar 1951 "U.S. Educational Stations" List of AM(MW) and FM(VHF) school stations
Communications (also short-lived by this name, before and after many mergers in field)
Jan 1949 "Airline TV Receiver Installation Tests" Reception between Norfolk, Washington, Detroit, and Chicago, at 4000 feet altitude.

Extensive listener columns and articles
All-Wave Radio (short-lived; last mag. with listener emphasis (some ham) before DXH)
(Accessable issues are from Jan 1937 (Vol 3 #1) to Jun 1938 (Vol 4 #6), monthly.)
All issues have "Short-Wave Broadcast Station List," 3,040 kHz to 41 MHz.
Dec 1937 "Ultra-High; When to Listen—What to Listen For" VHF station information and DX listening possibilities above 25 MHz.
"Ultra-High" Regular VHF DX listeners column, inbluding lists of all xmtrs (except television) above 25 MHz, Feb Mar Apr May Jun 1938.
Radio News (name changes: Radio & Television/TV News Aug 1948, Electronics World May59)
May 1928 "Seeing Across the Atlantic Ocean!" Article, 1st trans-Atlantic TV exp
Nov 1928 "Successful DX Work Marks 'Radio-Movie' Transmissions" DC TV recepinMass.
Jan 1929 "Television; The Latest Developments in the Field" List of TV broadcst
Feb 1929 "What Is Happening in the Television Field?" Additions to TV list.
Mar 1929 What's New in Radio: "Scanning Disc Is Adjustable to Four Transmissions" Includes list of television stations.
Apr 1929 "Successful Television Experiments in the Home and Workshop" List of stations. Reception of DX in Chicago and Fond du Lac, Wisc.
"On Short Waves" Regular section. May Jun 1929, Mar 1930, television DX notes.
Jan 1930 "Where Television is To-day" Development and reception of stations.
Jun 1930 "S-W Broadcasting Stations of the World" W/ US exp'l radio & TV sta.
Feb 1931 "Visual Broadcasting Still an Experiment" Includes US TV station list
May 1931 "The Boston Television Party" Article includes US TV station list.
Aug 1931 "Short Wave Station List, Broadcast-Phone-Television" Sta's above 1500kH
Sep 1931 "Building a Radiovisor" Includes reception possibilities and locations
Nov 1931 "Television Goes to Sea" TV receiver used on S.S. Leviathan, travels.
Oct 1932 "With the Experimenters" Regular section. TV reception in England.
Television station lists Feb Dec 1933, Dec 1934, Sep 1935, May 1936.
"Short Wave Station List" Includes exp'l VHF radio brdcst, Jun Jul 1936, Jul 1937
"Broadcast Stations in the U.S." MWBC list includes exp'l hi-fi, Dec 1936, Jan 1937
"The DX Corner for Broadcast Waves" Reg. MW col. Includes hi-fi sta. nx, May Aug 35
"The DX Corner for Short Waves" Reg. SWBC col. Incl. hi-fi & VHF exp'l brdcst DX tips
1935- Jun Dec. 1936- Feb Mar Apr May Jun Jul Aug Sep Oct Nov.
1937- Jan Feb May Jun Jul Aug Sep Oct Dec.
"The DX Corner for Broadcast Waves" Reg. MW col. News of VHF radio-TV DX, JulAug37
Jan 1937 "Britain Inaugurates Television for Public Use" BBC TV station details
Feb 1937 "Change in Frequency Allocations" Important MW-FM-TV frequency changes
May 1937 "Television Now Ready But Kept Under Wraps" TV freq. alloc. problems.
Jul 1937 "'Empire State' Television Shows Marked Advance" RCA TV exp's; GW-tropo.
Oct 1937 "Television Range Extended" TCA TV Field tests; distant GW reception.
Feb 1938 "Firing the Opening Guns of Television In The New York Area" NBC-BBC F2
Apr 1938 "Television Transmission Schedules" Schedules of some stations.
Apr 1938 "Is Television Here?" Incl. discussion of distant GW and F2 reception.
Jun 1939 "The Video Reporter" Reg. col. RCA reception of BBC TV on Long Island.
"Short Wave Flashes" Reg. col. W/VHF radio-TV news, tropo, Aug Sep Oct Nov Dec 1939
Jan 1940 "The Video Reporter" Reg. col. TV news; RCA TV reception in airplane.
Mar 1940 "The Video Reporter" Reg. col. TV interference btw. New York and Phila.

"For Immediate Release" Reg. col. TV-FM news, tropo, Sep Nov 1940.
"Spot Radio News" Reg.col. FM & TV freq. allocations, Es, F2, Mar 1943, MaySep1945.
Nov 1944 "Recording FM Bursts for Observation" Distant burst study, Es mention.
Jan 1945 "An Introduction to Television" TV activity, list of commerc. stations.
Nov 1951 "Summary of TV Situation Round-the-World" Countries' television plans.
Dec 1951 "No Television in Your City?" TV Es experience in Longmont, Colorado.
Dec 1952 "DX Television" TV Es results of Stan Johnson, Denver; equipment.
"TV Stations on the Air" US and Canada station lists, Jan 1954, Mar 1955.
Feb 1954 "TV on Mt. Fuji" TV reception atop Mt. Fujiyama, Japan, 12200'; equipment
Jan 1955 "Over-the-Horizon Transmission" UHF TV tropo scatter, Bell Labs expts
Jun 1957 "Operation Smoke-puff" Man-made E-region ionized cloud.
Aug 1957 "Fringe-Area FM Reception" Consistent distant reception in VancouverBC
Aug 1957 "Sunspots Mar TV Reception" Article infers Es, not F2; neither named.
Nov 1957 "First Over-Horizon TV Bridge" UHF TV tropo scatter; Florida-Cuba sys.
Feb 1958 "Rhombic Antennas for TV" by Bob Cooper Experience in Ontario & Calif.

Radio-Electronics (Radio-Craft before Oct 1948; start July 1929) (Hundreds of appropriate articles; in your exploring, you may consider others useful, too.)
"Short-Wave Stations of the World" Reg. list. All broadcast stations btw. 1500kHz and 60 MHz including exp'l radio & TV: Nov Dec 1929, Jan Feb Mar Apr May 1930
(There was no access to issues from July 1930 through September 1942.)
Dec 1943 "The Listening Post" Reg. SWL col. Includes list of commerc-exp'l US FM
Apr 1944 "World-Wide Station List" Reg. SWL col. Has list comm-exp FMs NYC area
Sep 1944 "FM Expansion Rapid" US FM activity; list of commerc-exp'l stations.
Nov 1945 "United States FM Broadcast Stations on New Frequencies" Newband sta. list
Dec 1945 "New FM Bands" Article, new FM band, discussion of propagation modes.
"Transatlantic News" Reg. British col. Mention F2, Es, tropo, Aug Sep 1946, Feb May 1948
"Radio-Electronics Monthly Review" F2 Atlantic & Australia, Sep 1947, Feb Mar 1948

TV station lists:
US 1948- Jan.
1949- Mar Jul Nov.
1950- Jan.
1953- Jul.
1954- Jan.
1955- Jan.
W. Hemisphere 1951- Jan.
1954- Feb.
US changes Feb 1953.
Europe activity Oct 1953.
Canada Feb 1955.
US-Canada 1955- Jun.
1956- Jan.
1957- Jan.
Latin-Amer. Aug 1957.
N. America 1958- Jan.
1959- Jan.
Station map Jan 1948.
Corrections Mar 1957.

FM station lists: US 1948- Apr Jun Sep Dec; 1949- Apr. Canada 1950- Jul.
FM-DX reports with station lists: Apr Jun Sep Dec 1948.
Jan 1949 "How to get Television DX" Equipment for fringe-area reception.
"Question Box" Reg. col. Rhombic antenna construction: lowband May49, hiband Sep49
Sep 1949 "The Radio Month" Reg. col. TV-DX indications in New York City area.
Feb 1951 "Rhombic Antennas for TV" Construction of four sizes.
May 1951 "What's the Mystery behind Television DX" Explanation of propagations.
Jul 1951 "V Beam for DX" Construction of long-wire V TV antenna for fringe work.
Mar 1952 "Beyond the Fringes" Rhombis & yagis in W. Pembroke, Maine, distant TV.
Apr 1953 "Transoceanic Television" Editorial, 1928 history, future scatter work.
Apr 1953 "DX Prospects for UHF TV" History VHF DX, recent UHF ham work, UHF TV?
Apr 1953 "Long Distance FM Receiver" Construction of sensitive receiver, results
May 1953 "High-gain Rhombic for TV" Construction (also "Question Box" this issue)
Jun 1953 "TV DXer" TV-DX poem by Jeanne DeGood.
Jun 1953 "The Effect of Sporadic E on TV Reception" A detailed analysis.
Jul 1953 "UHF Growing Pains Mark First Year of Unfreeze" Includes US TV sta. list
Dec 1953 Question Box: "Rhombic for Channel 2" Construction of 6-wavelength ant
Oct 1954 "The Radio Month" Reg. col. Color TV Es.
Oct 1954 TV Service Clinic: "Helical Antenna" Construction of UHF TV helical.
Jan 1955 "The Waves of Wireless" Poem by Lee De Forest; propagations included.
Apr 1955 "Horn Antenna Construction" Results (Also "Correspondence" Aug Oct 55)
May 1955 "New Departure in TV Antennas" Discussion of magnetic antenna.
May 1955 "The Planets and TV DX" Relationship theories (Also RCA Review Mar 51)
Aug 1955 "Antenna Beams TV Signals 188 Miles" UHF tropo scatter experiments.

Apr 1956 "Sunspots and Communications" Explanation, F2, ham-TV DX.
Apr 1956 "Interference vs Signal Strength" Microvolt strengths and pix ratings
Jan 1957 "Thirty Years of Television" TV history, early DX mentions.
Jan&Feb57 "Tall Tower Techniques" Construction and maintenance of rec'g towers.
Mar 1957 "Target for Dx'ers" Description of Australian TV channels, F2 possible
May 1957 "Rhomboids for TV Reception" Construction, results at Cloverdale NY.
Jul 1957 "Transoceanic TV DX" History of F2 in Texas; potential in this peak.
Aug 1957 "TV and Sunspots" Distant TV; writer confuses Es & F2, neither named.
Oct 1957 "News Briefs" Reg.col. Completion of UHF scatter link, Florida-Cuba.
Nov 1957 "Tips from a TV DX-er's Notebook" by Bob Cooper Equipment, propagations
Feb 1958 "Photographing C-R Tube Images" TV Screen photo-taking details.
Jul 1958 "Communications via Meteor Bursts" FM burst history, present use.
Aug&Nov58 "News Briefs" Reg.col. 108-MHz moonbounce listening.
Sep 1958 "Looking In on London" Details of TV receiver conversion for BBC F2 reception in North America (Also see "Correspondence" Dec 1958).
Oct 1958 "News Briefs" Reg.col. Navy balloon with UHF TV xmtr ch. 14 (470 MHz).
Dec 1959 "Photographing TV DX" TV-photo principles; time exposures 'melt' snow.
Mar&Apr60 "News Briefs" Reg.col. Atmospheric ducts over oceans carry VHF-UHF.

Regular TV DX column (also FM starting Sep 1958) (Yearly resumes underlined):
(Some are not listed in Table of Contents.)
1949- Nov Dec.
1950- Jan Feb Mar Apr Jun Aug Sep Oct Nov Dec.
1951- Jan Feb Jun Jul Aug Sep Oct Nov Dec.
1952- Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec.
1953- Jan Feb Apr May Jun Jul Aug Sep Oct Nov Dec.
1954- Jan Feb Mar Apr Jul Oct.
1955-Jan Feb Apr Jul Oct.
1956-Jan Jul Aug Oct Dec.
1957-Jan Mar May Jul Sep Nov.
1958-Jan Mar Jun Jul Sep Nov.
1959- Jan Mar May Jul Sep Dec.
1960- Jan Feb.

DXing Horizons (Television Horizons May 1961; Video-Communication Journal Apr 1963)
Started Jan 1960. TV-DX reporting column Jan 1960 to Aug 1961.
FM-DX reporting column Jan to Dec 1960, combined with TV-DX Feb to Aug 1961.
Numerous interesting articles on long-range VHF-UHF reception, equipment, construction, UHF TV problems, and FCC news, along with translators and CATV.
Last issue under Horizons Publications Dec 1963.

CB Horizons (Horizons Publ. mag. starting June 1961)
Jun 1961 "CB and Sunspots; No More Skip...Interference?" 2-article series; relation of spots & Es, CB-TV-FM
Jul 1961 "On CB - No Sunspots Can Mean More Skip"
S9 (CB emphasis)
Sep 1966 "The SWL Shack" Reg.col. Mention of TV Es seen in NY from Mississippi
May 1967 "DX on the Idiot Box" Article about TV-DXing.

Technical journals

Proceedings of the I.R.E. (Institute of Radio Engineers) (Since Jan 1963, Proc. of the I.E.E.E. (Institute of Electrical and Electronics Engineers)
Oct 1937 "Field Strength Observations of Transatlantic Signals, 40 to 45 Megacycles" BBC&Berlin TV F2 at Long Island and Indiana, Jan-Apr 1937.
Jan 1939 "Observations on Sky-Wave Transmission on Frequencies Above 40 Megacycles" BBC-Berlin-Paris TV F2 at LI NY, also at Phoenix & San Juan. 37Sep-38Mar.
Nov 1939 "Transatlantic Reception of London Television Signals" BBC TV F2 skip at Riverhead, Long Island, New York, from Sep 1938 to Mar 1939.
Jun 1944 "Timely Broadcast Matters" Frequency alloc. and propagation discussion.
Feb 1947 "Very-High-Frequency and Ultra-High-Frequency Signal Ranges as Limited by Noise and Co-Channel Interference" FM tests, propagation disc.
Feb 1947 "Field Intensities Beyond Line of Sight at 45.5 and 91 Megacycles" FM monitoring project, GW-tropo.
Dec 1947 "A Study of Tropospheric Reception at 42.8 Mc. and Meteorological Conditions" FM monitoring project, tropo.
Mar 1949 "Detection of Radio Signals Reflected from the Moon" FM-band moonbounce
Dec 1950 "Comparison of Tropospheric Reception at 44.1 Mc with 92.1 Mc Over the 167-Mile Path of Alpine, New Jersey to Needham, Massachusetts" FM.

Jun 1951 "A Study of Tropospheric Scattering of Radio Waves" FM measurements.
May 1953 "A Review of VHF Ionospheric Propagation" Includes TV-FM Es and F2.
Aug 1956 Correspondence: "VHF Diffraction by Mountains of the Alaska Range" TV.
May 1958 Correspondence: "Lightning Enhancement of a VHF Tropospheric Scatter Signal" TV lightning-scatter monitoring.
Jun 1960 "Report of the Television Allocations Study Organization" Many articles showing results of VHF and UHF TV field-strength tests, etc.

RCA Review (started July 1936)
Jul 1936 "RCA Television Field Tests" RCA's TV xmtr-rcvr eqp, 1931 to 1936.
Jan 1937 "Equipment Used in the Current RCA Television Field Tests" 1936-1937.
Jan 1937 "Some Notes on Ultra High Frequency Propagation" VHF propagation discussion for proposed TV frequencies above 30 MHz (also "Frequency Assignments for Television" this issue). DX is considered rare!
Oct 1937 "Field Strength Observations of Transatlantic Signals, 40 to 45 Megacycles" Proceedings of the IRE (Oct 1937) reprint.
Jan 1939 "Observations on SkyWave Transmission on Frequencies Above 40 Megacycles" Proceedings of the IRE (Jan 1939) reprint.
Jan 1940 "Television Reception in an Airplane" Reception, eqp, Wash.DC-New York.
Apr 1940 "Mobile Field Strength Recordings of 49.5, 83.5, and 142 Mc from Empire State Building, New York—Horizontal and Vertical Polarization" TV.
Oct 1940 "NBC Frequency-Modulation Field Test" 42.6-MHz AM-FM tests, ESBldg NYC
Mar 1950 "Experimental Ultra-High-Frequency Television Station in the Bridgeport, Connecticut Area" Tests with TV station KC2XAK, 529-535 MHz.
Mar 1951 "Investigation of Ultra-High-Frequency Television Transmission and Reception in the Bridgeport, Connecticut Area" Further tests, KC2XAK.

Books, pamphlets and publications

Ernest K. Smith: Worldwide Occurrence of Sporadic-E, National Bureau of Standards Circular 582, 15 Mar 1957, book available from Superintendent of Documents, Government Printing Office, Washington DC 20402, $3.25. Extensive detailed research project about Es, including TV-DX section. Info is also in larger book by Smith and S. Matsushita: Ionospheric Sporadic-E, Pergamon Press, 122 E. 55 St., New York NY 10022, $15.50, but is extremely technical and complex overall.

Eastman Kodak Co.: Photography of Television Images, Customer Service Pamphlet AC-10, Eastman Kodak Co., Rochester NY 14650, Oct 1967 (no charge). B&W-color TV photos.

Communications Handbook (Popular Electronics publication). Yearly issues. 1969 $1.35. Ham-CB-SWL articles of usual general interest. 1967 issue has article "Riding the TV DX Trail" which was in Jul 1966 PE. 1967 CH is available for $1.00 from Gilfer Associates, Inc., Box 239, Park Ridge NJ 07656.

Vane A. Jones: North American Radio-TV Station Guide, Howard W. Sams & Co., Inc., Indianapolis IN 46206, fifth edition, $2.95. AM-FM-TV station listings. Available from publisher and from Gilfer, and some electronics dealers.

Broadcasting Yearbook, Broadcasting Publications Inc., 1735 DeSales St. NW, Washington DC 20036. 1970, 39th yearbook issue, $11.50. Listing and facilities of US AM-FM-TV stations; condensed Canada listings. Write publisher for further info.

Television Factbook, Television Digest, Inc., 2025 Eye St. NW, Washington DC 20006. Yearly. Most complete listing of US and Canada TV stations including translators. Facilities, rates, coverage maps. Write publisher for information.

Spot Radio Rates and Data, Standard Rate and Data Service, Inc., 5201 Old Orchard Road, Skokie IL 60076 (also Spot Television Rates and Data, same publisher). Huge monthly listings of US AM & FM (or TV) commercial stations with detailed rates and program info. Subscriptions are prohibitive ($40 & $35/yr) but you may find them at stations. Probably not as useful for us as BCY and TVF above.

EUROPEAN PUBLICATIONS

Periodicals (magazines)

Wireless World (British; access only to Jan-Jun 1928, Jul 1943 thru 1944, & 1947 on)
15 Feb 1928 Current Topics: "Television to America" SW TV xmsn, England to NY.

Apr 1944 "Frequencies for Television" Propagatin discussions, F2, Es, weather, etc.
"Ionosphere Review" Propagation conditions yearly summary, including VHF TV F2:
Mar 1947, Feb 1948, Feb 1949, Feb 1950, Mar 1957, Feb 1958, Feb 1959, Feb 1960.
TV-FM DX in "Letters to the Editor" section: Sep 1947, Feb Jun Sep Nov 1948, Aug 1949, Dec 1956, Mar May Aug 1958, May Jun Sep Nov 1959, Nov 1961, Dec 1963, Jan 1964.
TV-FM DX in "World of Wireless" section:
Nov 1947, Dec 1948, Aug 1952, Dec 1956, May 1957.
Apr 1950 "Unusual Ionospheric Storm" Special report about 20-Feb storm.
Nov 1950 "Long Range Television" BBC TV reception in South Africa, Mar 1949-Jul 1950, results and analysis. Correction in Dec 1950 issue.
Jan 1952 "Propagation of V.H.F. via Sporadic E" Discussion of Es, effects.
Jul 1954 "Long-distance V.H.F. Reception" Lightning-burst TV experiments.
Oct 1955 "Long-range Television Reception" TV-DX experience in southern Sweden
Dec 1955 "Long Distance V.H.F. Interference" Detailed Es-tropo discussion TV-FM
Feb 1956 "Long-Distance I.T.A. Reception" VHF TV Band-III GW-tropo.
Apr 1959 "Long Distance V.H.F. Reception" VHF TV Band-I prop. disc., F, E, tropo, etc
Jun 1959 "Sporadic E and the F2 Layer" Es-F2 relationship theories.
TV-FM DX in "Random Radiations" column:
Mar 1956, Feb 1958, Jun Jul Aug Sep Oct 1960, Feb 1961.
(WW has recently become technical journal with smaller chance of appropriate articles; TV & FM news now better found in the following two British magazines)

Practical Television

Charles Rafarel writes "DX-TV," a column in every monthly issue. Column started Sep 1963 and is still active. Other occasional DX articles, including some by Roger Bunney, station lists, and other interesting European TV news. Subscription is 1.9.0/year, George Newnes Ltd., Tower House, Southampton St., London W.C.2, England. USA subscribers, $4.25/yr (7.75/2 yrs, 10.50/3 yrs), Iliffe-NTP, Inc., 300 East 42 St., New York NY 10017.

Hi-Fi News

A.H. Uden edits "FM Diary," a monthly column of FM-DX and station news. Magazine has occasional DX articles, FM station lists, and high-fidelity news and features from Britain and the Continent. Link House Publications Ltd., Dingwall Ave., Croydon, Surrey CR9 2TA, England (38s/yr overseas, USA $5.40).

Books, pamphlets and publications

W.J. West: How to Receive Foreign Television Programmes on your Television Set by Simple Modifications. Bernards Radio Manual No. 183, may still be available, from Bernards Ltd., The Grampians, Western Gate, London W.6, England, for 5/- (apx 75¢ US) plus postage. Of use in European DX installations particularly, and has interesting collection of photo identifications.

F. Rydström, O. Engelstoft, J. Fialla: How to Build TV Antennas for All Channels, O. Lund Johansen, World Publications, Lindorfs Alle 1, Hellerup, Denmark, November 1964, "new edition" Available in USA from Gilfer Associates Inc., Box 239, Park Ridge NJ 07656, $1.98. Written by Europeans, useful worldwide, though not recent enough to include log-periodic antennas. TV-DXing info.

J. Vastenhoud: How to Improve your TV Reception, World Publications, Hellerup, Copenhagen, Denmark (1964?). Television principles, equipment, and DXing. Apparently out of print, but Gilfer may have some in stock.

J.M. Frost, ed.: How to Listen to the World, 1969/70, World Radio-Television Handbook Co. Ltd., Sundvej 6, 2900 Hellerup, Denmark, 5th edition. Available in USA from Gilfer, and from How to Listen.., 2160 Patterson St., Cincinnati OH 45214, $3.95. Many phases of DXing, MW-SW-TV, though FM seems to be absent. DX-TV article is prepared by the France DX TV Club.

J.M. Frost, ed.: World Radio-TV Handbook, 1969, World Radio-Television Handbook Co. Ltd., Sundvej 6, 2900 Hellerup, Denmark, 23rd edition. Available in USA from Gilfer and from How to Listen.., $5.95 (1969 Summer Supplement $2.50). Yearly worldwide listing of radio and television broadcast stations, MW, SW, FM, TV.

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# EASTERN TV-DX

Morrie Goldman WA9RAQ
8046 South Euclid Ave.
Chicago, Illinois 60617

For all television reporters east of the Mississippi River... JANUARY
Next deadline 1-12-70

## The Off Season*

For the most part, this is the time of year we, TV-DXers start getting our logs in order and send out follow ups on those unverified stations while keeping one eye open for"off season"openings and the other for MS. Another favorite passtime of the "off season" is reminiscencing last seasons DX with the aid of a few photos and QSLs.

The question is,"is the'off season'really so off?" Many DXers would claim no, while others would agree. In examining the problem we first notice that most TV-DX is seen because of either trops or Es propagation modes peaking in the spring, summer, and autumn months. This would seemingly leave a lull in DX activity, but for the observant and ambitious DXer, the winter just means an alteration in procedures. These may include getting up at four or five in the morning to sit in front of a blank screen, until, for a second or so so a station bursts in; or straining your eyes thru auroral flutter to read a call sign. There's even those few "off season" trops and Es openings that have a habit of popping up at the most awkward times. Sure, DXing during the wintor months isn't as easy as lying back and enjoying summer E skip, but what better chance do you have to put your true DXing skill to work? The fact reains that in the winter, the DX is still there, but all too often the DXer isn't.

(* Reprinted from January 1968 VUD, by Morrie Goldman)

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As mentioned in this month's Hq report, we have enclosed a members survey with this issue. Often, we are in doubt as to how we can best serve your needs; the survey should help greatly, so we would appreciate a prompt reply.

Also mentioned in "Hq" is a new method of reporting signal strengths, called VAFI. All reports to this column using the VAFI system of rating signal quality will have the signal reports included in the printed report. The system is really quite easy to use and should help in giving an added dimension to the column reports.

At this writing, few reports have been received describing the Geminids meteor shower, however the following conclusions can safely be made: most activity seems to have occured in the evenings, useless for TV-DXing; burst rates were high, but signal strengths were somewhat lower than might be expected and general productiveness of the shower was lower than past years. Bob Cooper commented that he never got so many bursts with so few IDs. My problems here, were compounded by locals WMAQ-5 and WBBM-2 testing their new Hancock transmitters as early as 0400! I at least hope that some of our members might have logged them because of their early tests. WBBM-2 was using their CBS-TP and WMAQ-5 their NBC-TP as described in the November CCI column.

Well, a new decade has arrived with 1970. Past years have shown the first month of the new year to often bring some amazing trops openings. Last years occured on January 19th, 20th and 21st; In 1969 it appeared a bit early, breaking loose in early December and in 1966 and 67, somewhat less noteworthy openings appeared New Years Eve. So keep an eye open for that traditional New Year Opening!

I would like to thank all of you who reported to this column during 1969 and supported it so well. In fact, during the DX months it was supported so well that it could have filled two columns and necessitated more editing than I would have liked. For this reason, I have chosed to split the EDX column into two seperate columns in 1970. Since two editors will be covering the Eastern US, more detailed reports will probably result. More information on this will appear next month.

**Paul D. Traska, 64 Weaver Avenue, Buffalo, New York 14206 (EST)**

9-21: 0200 WJIM-6 Lansing, MI G. w/color
0215 KARK-4 Little Rock, AR tp Good
9-22: 0230 WCBS-2 NYC Fair
0310 WNBC-4 NYC Good w/ color
9-23: 0210 KYW-3 Phil., PA Fair w/tp
10-1: 0100 WNEP-16 Wilkes-Barre PA G/color
1130 WSYE-18 Elmira, NY "
WDAU-22 Scranton, PA "
10-5: 0215 WSAZ-3 Huntington, WV G/tp
1130 WHTN-13 " " Fair
0200 WFIL-6 Phil., PA "
0305 WCAU-10 " " G/color
0245 WJZ-13 Baltimore, MD Fair
0120 WPHL-17 Phil., PA Fair
1130 WBRE-28 Wilkes-Barre, PA G
(Log total at 90 stns.) w/color

Richard Clark, 4110 Bayview Drive, Ft. Lauderdale, FL 33308 (EST)

11-2: Tr 1800 WTVJ-4 Miami, FL
1830 WCKT-7 " "
1900 WAJA-23 " "
1930 WTHS-2 " "
2000 WLBW-10 " "
2030 WPTV-5 Palm Beach, FL
11-2: Tr 2100 WEAT-12 W. Palm Beach, FL
2115 WCIX-6 Miami, FL
11-10: Tr 1300 WSEC-17 " "
2100 WESH-2 Daytona Beach, FL
2130 WDBO-6 Orlando, FL
0100 WTVT-13 Tampa. FL

The list is small, because I don't have everything up yet in my new home. RCA color set, BTX UHF, 12 bay UHF antenna. FL log total at 13 stations.

Dave Pomeroy, 3516 Lansdowne Drive, Lexington, KY 40503 (EST)

10-7: Tr 0800 WKPI-22 Pikeville, KY
WMUB-14 Oxford, OH
WOSU-34 Columbus, OH
11-24: Tr WLBC-49 Muncie, IN
1915 WEHT-25 Henderson, KY
2000 WTIU-30 Bloomington, IN VG
2100 WSBT-22 S. Bend, IN CCI
11-25: Tr 0055 WIMA-35 Lima, OH
0100 WTOL-11 Toledo, OH
2130 WMUL-33 Huntington, WV

(Yours is a very interesting location to DX from, Dave. Wonder what stations are daily reception at your QTH? MG)

An interesting early morning Es opening poped up on 12-23. Results of this "after deadline" opening are covered in Bill Heusmann's report and that of your editor.

Bill Heusmann, 3116 Sangamon St., Steger, IL (CST)

11-28: MS 0430 WCBS-2 NYC, NY (CBS TP)
to WBZ-4 Boston, MA (MIHTP)
0600 WJXT-4 Jacksonville, FL(NEW)
Tr WLWD-2 Dayton, OH
12-22: MS 0452 WBZ-4 Boston, MA
0455 to 0500 Several bursts of UnID ID slide on ch2.
0504 WESH-2 (tent) Daytona Beach FL
0508 WESH-2 & WSB-2 both tent w/CBP
WNBC-4 (tent) NYC, NY
12-23: Es 0450 WESH-2 w/ID slide
0457 WLBQ-6 w/res. cht & IDed RETMA
0501 WSB-2 CB pat. w/ID
UnID-4 RETMA WTVJ???
12-23: Es 0509 WJXT-4 Custom color TP
0517 WCTV-6 ID slide
0523 WRBL-3 CBS TP & mx
MS 0552 WKY-4 MIHTP
0558 KGNC-4 MIHTP
Es 0600 WWL-4 3/4 CB
0608 WWL-4 changes to MRETMA
0613 WLBT-3 MIHTP
0630 KATC-3 Lafayette, LA
0713 KMID-2 Midland, TX
0718 KIII-3 W/3/4 CB
0722 KJAC-4 Port Arthur, TX
0800 KFDM-6 (Tent)
1900 WLBZ-2 (Tent) Bangor, ME

Terrie Goldman, Editor (CST)

12-9: Tr 2000 Local WMAQ-5 having xmtr trouble, loosing signal for as long as 20 minutes, off and on. As a result WFRV-5 noted and an UnID ABC station.
12-11: 0525 UnID-7 Color bars to SE
0610 KRLD-4 tent. also at 0616, 0618 & 0621 w/MIHTP.
12-13: MS Noted WMAQ & WBBM T/on killing2 & 5 at 0500, but MAQ off from 0518-525, 0518-0523 Misc Pgm bsts (seeCCI column)
12-23: Es 0450 WESH-2 ID & tt (4234R)
0455 WSB-2 IDed CB (3234R)
0500 WESH-2 w/aud.ID, then 3/4 IDed CB
0506 WTVJ-4 tent. w/ RETMA (3234T)
WJXT-4 w/custom color tp
0510 Local WBBM T/on kills ch2
0515 WJXT-4 s/on & "Pastor's Study"
UnID custom RETMA in briefly
0521 WCTV-6 w/ID slide
0521 UnID-4 3/4 CB (WWL) (5344R)

12-23: Es 0609 WWL-4 ID RETMA & tt (4435R)
MS 0610 KGNC-4 ID slide
Es 0614 WLBT-3 w/MIHTP (4345N)
0622 WLBT-3 s/on
0628 KATC-3 Lafayette, LA (4433R)
0709 KMID-2 tent. thru local WBBM
CCI noted from at least one other channel 2, as well.
0714 UnID-4 Ad for "Fair Dept Store". SW

12-23: Es 0716 KIII-3 w/ 3/4 CB fades out at 0720, returning at 0729 w/ID/
0720 UnID-3 Ad for Woolco in Port Arthur.
0728 KTVC-6 Ensign, KS w/nx(3123)
UnID-6 tent. KRIS w/nx(3123T)
0740 WJAC-4 Port Arthur, TX
Many other UnIDs seen throughout morning (see CCI column).
Offset bars noted on ch 2 all day.

The Es opening of 12-23 really did come as a shock, as it was the earliest that I'd ever seen Es. For the first time, Es before my local ch 2 s/oned! But as luck would have it, the two stations seen by Es before WBBM pulled the big switch, were both relogs. Even so, seeing all those tps float in, on 3, 4, & 6 won't be forgotten! Geminids was a different story. In general, that shower was disappointing for two main reasons: most bursts came in evening, not morning, useless for TV-DX; Locals 2 & 5 seemingly like to test their new xmtrs as erly as 0400. The few bursts I did get on channel 5 were received within a short span when WMAQ cut their signal.

A short note from Bill Draeb indicates that November wasn't much of a dx month there. Bill writes, "I didn't write anything in my logbook since Nov. 9. I did a little MS DXing, but no positive results."

I would like to mention an error many reporters have been making (this includes your editor!) in their reports. That is, the distinction between T/on (transmitter on) and S/on, (sign/on). When a stations firsts airs in the morning, usually with a test pattern or similar test, this is T/on. When they begin their programing, this is S/on. Along the same lines, S/off, is end of programing and T/off is, transmitter off.

As you may have noticed, I tried to get the "VAFI" ball rolling by including partial VAFI signal reports in my report. I hope others will join in. Details of the VAFI system can be found in this month's HQ page.

# LATE HQ NEWS

THE LAST STATION LIST WAS SOLD TODAY, (27 DECEMBER), SO NO MORE ORDERS ARE ACCEPTED. IF YOU DIDN'T GET ONE YOU HAVE NO ONE TO BLAME BUT YOURSELF FOR WAITING SO LONG.

RE THE LIST OF PROJECTS WE PRINTED A FEW MONTHS AGO, WE HAVE HAD VOLUNTEERS FOR SEVERAL OF THE PROPOSED PROJECTS. ANY ASSISTANCE YOU CAN GIVE WILL BE GREATLY APPRECIATED BY THOSE WHO HAVE VOLUNTEERED TO HANDLE THE BULK OF THE WORK; THEY ARE:

BILL LIPIS, Box 325, EL CAJON, CA. 92022: OFFERRED TO DO THE LIST OF FM REGIONAL AND OTHER SPECIAL NETWORKS INCLUDING SPORTS, NEWS, MUSIC,

RANDY MILTIER, 1760 WHITWOOD LANE #3, CAMPBELL, CA. 95008: VOLUNTEERED TO DO THE TV STATION CHANNEL MAPS, AND OFFERED TO DREAM UP SOME COVERS AS WELL. HE'S A DRAFTSMAN.

ROGER BROWN, 624 EVERGREEN AVE., EATST LANSING, MI. 48823: OFFERED TO DO THE TV REGIONAL NETWORKS LIST, AND WHEN THAT IS DONE HE'LL TACKLE THE TV STATION SIGN-ON TIMES FOR US.

BILL DRAEB, ELLIS ST., RR#2, KEWAUNEE, WI. 54216: HAS ALREADY SENT A LIST OF UHF OFFSET FREQUENCIES TO HQ, AND WE SHALL PUBLISH IT SOON. OF COURSE IT IS AN OLD LIST AND THERE ARE LIKELY QUITE A NUMBER OF CORRECTIONS TO BE MADE. BUT IT IS A START AT LEAST. THERE ARE NO RECENT LISTS BECAUSE THE FCC INSISTS NO OFFSETS HAVE BEEN ASSIGNED IN RECENT YEARS.

JOHN RAMSEY, 22 WATERSIDE LANE, WEST HARTFORD, CT. 06107: HAS OFFERED TO DO THE COMPREHENSIVE FM STATION LIST. THIS THE BIGGEST PROJECT OF ALL AND I AM SURE JOHN WOULD WELCOME HELP. THE LIST IS CHANGING DAILY, FASTER THAN TV, AND IS A MONUMENTAL TASK JUST TO KEEP UP TO DATE. (I JUST HEARD OF A NON-MEMBER WHO WANTS TO COMPILE A LIST ALSO, AND I'LL TRY TO PUT HIM IN CONTACT WITH JOHN ASAP.)

ALL OF THESE VOLUNTEERS CAN USE ALL THE HELP THEY CAN GET SO YOU ARE WELCOME TO CONTACT THEM DIRECTLY TO OFFER ANY ASSISTANCE YOU CAN GIVE. I'M SORRY I HAVEN'T MENTIONED THEM PREVIOUSLY BUT HQ IS IN TURMOIL MOST OF THE TIME AND I KEPT FORGETTING.

# OFFSET IDENTIFICATION

BY: MORRIE GOLDMAN

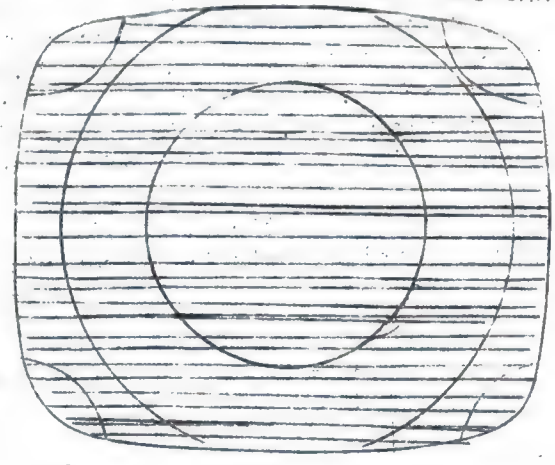
EVER SINCE THE FEDERAL COMMUNICATIONS COMMISSION LIFTED THE FREEZE ON TELEVISION IN 1952, ALL US AND LATER CANADIAN TELEVISION STATIONS ADAPTED A SYSTEM TO REDUCE CO-CHANNEL INTERFERENCE. THIS SYSTEM, KNOWN AS THE OFFSET FREQUENCY SYSTEM, ALLOCATED STATIONS TO BE EITHER EXACTLY ON CHANNEL, 10KHz HIGH OF THE CHANNEL, OR 10KHz LOW, WITH THE THOUGHT OF KEEPING NEAR BY STATIONS FROM CAUSING UNDUE CCI TO THE OTHERS COVERAGE AREA. THE SYSTEM WAS REASONABLY SUCCESSFUL FOR BROADCASTERS, AND HAS BEEN EVEN MORE SUCCESSFUL FOR TV-DXERS, BUT FOR QUITE A DIFFERENT REASON!

THE OFFSET SYSTEM HAS A LUCKY SIDE EFFECT FOR TV-DXERS; WHEN TWO STATIONS BEAT AGAINST EACH OTHER, AN OFFSET PATTERN IS CREATED. THE PATTERN, REPRESENTED BY A NUMBER OF DARK HORIZONTAL BARS, REVEALS HOW MANY KHz SEPERATION EXISTS BETWEEN THE TWO STATIONS.

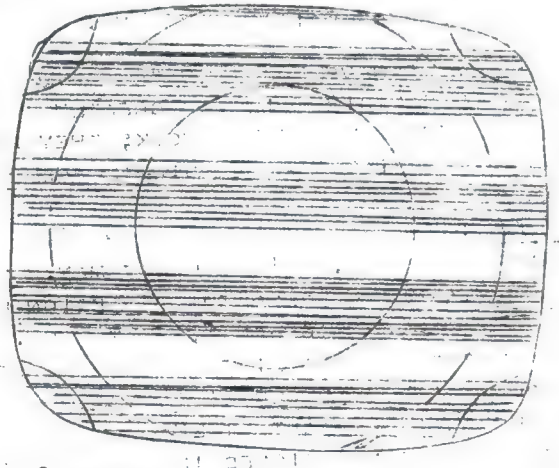
ASSUMING YOU ALREADY KNOW WHAT STATION YOU ARE RECEIVING, YOU CAN REFER TO A STATION LIST AND LEARN WHAT OFFSET FREQUENCY IT OPERATES ON. ONCE YOU HAVE THIS INFORMATION, IT IS EASY TO DETERMIN WHAT OFFSET AN INTERFERING IS OPERATING ON, WITH ONE EXCEPTION. IF YOUR REFERANCE STATION (THE STATION YOU ALREADY HAVE IDED) IS EXACTLY ON CHANNEL, YOU SHOULD ONLY BE ABLE TO SEE A MAXIMUM OF TWO TYPES OF OFFSET PATTERNS, -0- (SAME OFFSET AS REFERANCE) AND 10KHz. HOWEVER, IN THIS CASE THAT 10KHz PATTERN COULD MEAN THE INTERFERING STATION IS EITHER 10+ OR 10-. IF YOUR REFERANCE STATION, ON THE OTHER HAND, IS EITHER A + OR -, ALL THREE PATTERNS CAN BE OBSERVED.

TV-DXERS SHOULD USE THE OFFSET SYSTEM ONLY AS AN AID TO IDENTIFICATION OF AN UNID STATION. IN ITSELF OFFSET IDENTIFICATION IS NOT A VALID MEANS OF IDING A STATION, BUT IT CAN BE A VERY USEFUL TOOL IN CONNECTION WITH OTHER INFORMATION. IF OTHER INFORMATION IS AVAILABLE, SUCH AS NETWORK, DIRECTION, CHANNEL, ADS, ETC., THE PROPER OFFSET MIGHT BE THE FINAL CLUE NEEDED FOR A POSITIVE ID.

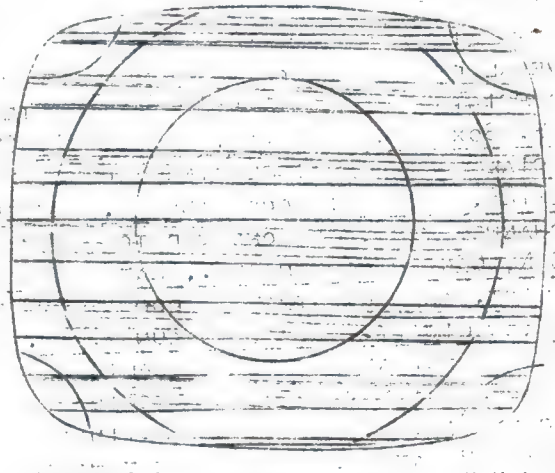
AUDIO OFFSETS ALSO RESULT FROM CCI, BUT LITTLE RESEARCH HAS BEEN DONE IN IDING SPECIFIC OFFSETS BY AUDIO ALONE.



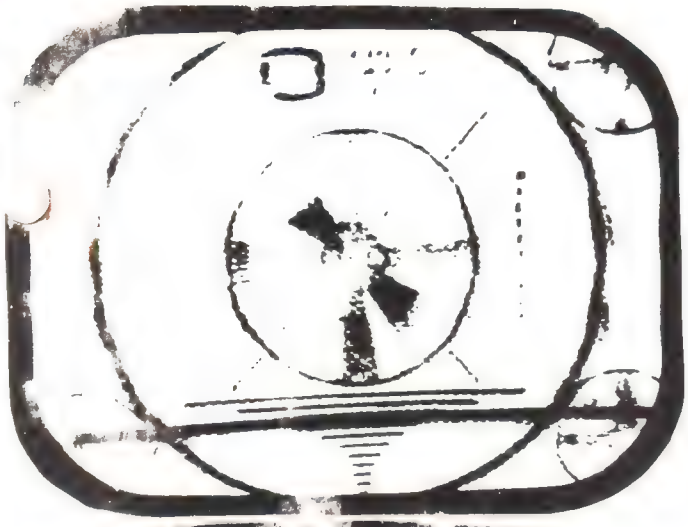
18 TO 50 FINE BARS... 20KHz

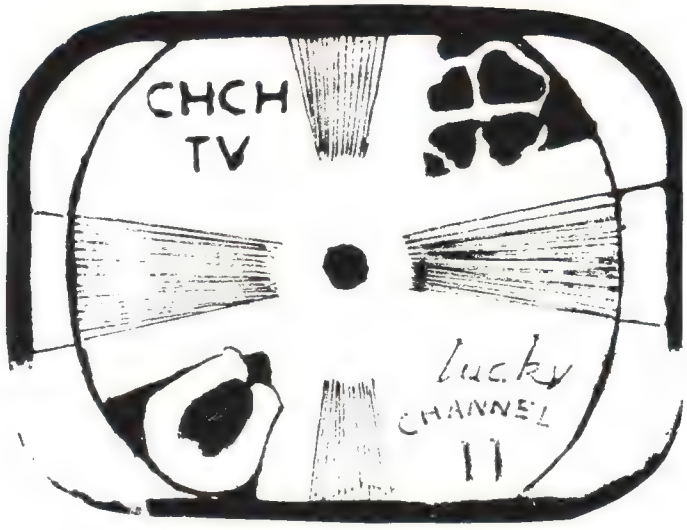


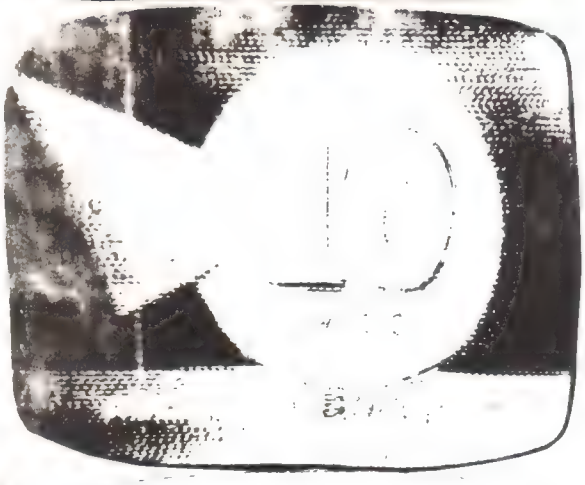
-0- OFFSET... 2 TO 5 LARGE BARS

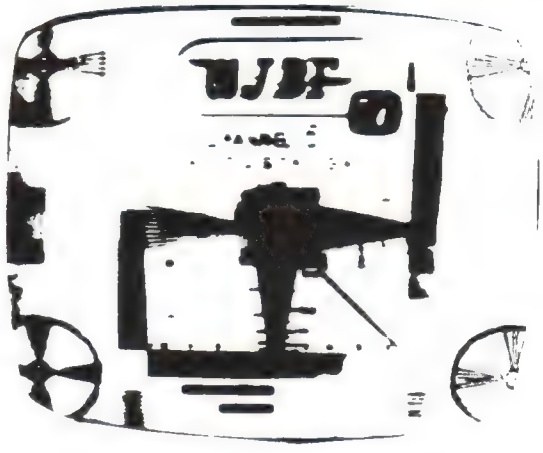


10KHz... 7 TO 12 BARS

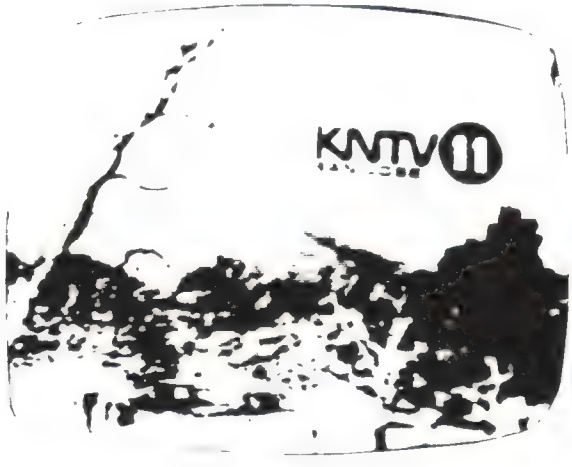












Left to Right, Top to Bottom:
CFPL-10 London, Ont.; CHCH-11 Hamilton, Cnt.
KROC-10 Rochester, MN; WJBF-6 Augusta, GA (rcvd in GA) Courtesy of M. Goldman, (IL)
KVIE-6 Sacramento, CA; KNTV-11 San Jose, CA both courtesy of Randy Miltier, (CA)
WKBD-50 Detroit, MI; M. Goldman, (IL)

If you would like your DX photos to appear in the VHF-UHF Digest, send them to WTFDA, Box 5001, Milwaukee, WI 53204 Photos should be high contrast and sharp. Negatives may also be sent. For return please include a SASE.

# WESTERN TV-DX

Dennis Park Smith
321 Santa Barbara St.
Santa Barbara, California
93101 U.S.A.

January 1970
Deadlines: 12th of each month

Pat Dyer, 327 Solar Drive, San Antonio, Texas 78227 . (October-November) (Times CST)

Receiver: 1968 23" RCA model GJ721W. Antenna: Oct, combination high-low VHF (3-el. each) on common 6-ft boom, about 20 ft high, aim fixed at SW. Thru Nov 15, 2-el. (each) high-low VHF, about 15 ft up, fixed. Since Nov 15, Wards 11-el. (high-low VHF), about 15 ft up, aim fixed at ESE. UHF antenna for entire period, indoor loop.

October:

1 Tr 2312 unid 7 Tampico (?), Mexico
2330 KGBT- 4 Harlingen, Texas
2340 unid 4 Mexico
2355 unid 6 Mexico
2 Tr 0013 KPRC- 2 Houston, Texas
0035 WBAP- 5 Ft. Worth TX
0045 unid 8 Mexico
0100 unid 11 Mexico
0830 KHTV 39 HoustonTX(my 1st UHF DX)
2312 KGBT- 4 Harlingen TX
3 Tr 0040 WVUE 12 New Orleans, Louisiana
5 Tr 0140 KTRK-13 Houston TX
9 Tr 2304 KGRV- 5 Weslaco TX
2338 KGBT- 4 Harlingen TX
2358 KIII- 3 Corpus Christi TX
11 Tr 0040 WBAP- 5 Ft. Worth TX
(11) Es 1829 WUSN- 2 Charleston SC (tent.)
12 Tr 2345 KRLD- 4 Dallas TX
18 Tr 0140 KTRK-13 Houston TX
0140 KHOU-11 Houston TX
26 Tr 0020 KGNS- 8 Laredo TX

November:

6 Tr 0004 KRBC- 9 Abilene TX
0005 KWTX-10 Waco TX
1229 KGNS- 8 Laredo TX
10 Tr 0100 unid 10 Mexico
16 Tr 2350 unid 2 Mexico
18 Tr 0035 KRIS- 6 Corpus Christi TX
22 Tr 2355 XEFE- 2 Nuevo Laredo,Tamp., Mex.
23 Tr 0220 KGNS- 8 Laredo TX
25 Tr 2359 KGNS- 8 Laredo TX
26 Tr 0003 KRIS- 6 Corpus Christi TX
30 Tr 0103 KGNS- 8 Laredo TX

As you will note the location has changed. The move was made October 31. Thus all November loggings are from San Antonio. There was not a single Es TV opening noted during the entire month of November. November always (for me since 1962) has produced a few Es openings. With the way that the rest of the year has been it should not be too unexpected though.

I have not been able to get a positive Es ID since late August. However, as I mentioned in my first report, some of this is due to me being active on 50-MHz when Es is in.

The only unusual happening of the reporting period is the pick-up in tropo out of Mexico. Until October XE tropo had been virtually unknown to me.

MS (which I don't follow too much) picked up during mid November with the Leonid shower, with a few chance bursts being noted as high as Ch 7. According to the latest theories on Es, the debris left behind by meteors play a significant role in Es formation. This is why (until this year) one could rely on a mid-November breakout of TV Es. Let's hope the Geminid shower in December is more effective in helping the Es form.

I've tried to keep a little bit better track of my tropo loggings this time, as promised. I hope there'll be more Es next time. vy 73, WA5IYX/5 (WPE5AW).

(One would have thought that there would have been some trace of off-season Es in November, even with a poor summer season. But, no such luck. We appreciate any comments you may have for us about theories of Es causes such as this, Pat. Your log is good; though distances are the only thing of possible interest that is lacking. dps)

The above report shows that we had another bit of 11-October Es, at 1829 CST, to add to the slight amount on that date in last month's report at 1830-1930 CST. So far, of course, there are no reports of Es in November.

Dennis Smith—Coastal southern California tropo has really picked up on TV and FM since 11 December or so, indicating a good inversion layer condition. It is quite excellent as of the 16th.

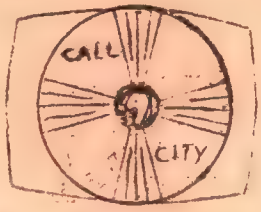
Best of DX to all Dennis

BILL HEUSMANN, 2804 BRATTLEBORO AVE., DES MOINES, IOWA, 50311

# CCI

METEOR SCATTER AND A SURPRISE ES OPENING HAVE PROVIDED ENOUGH UNIDS TO JUSTIFY YET ANOTHER EDITION OF CCI. O.K. FANS, SEE WHAT YOU CAN DO WITH THESE DANDIES:

BILL DRAEB (ELLIS ST., RR #2, KEWAUNEE, WI 54216) RAN ACROSS SOME HIGH BAND MS DURING THE GEMINIDS SHOWER. ON SATURDAY, DECEMBER 13 AT 2206 CST BILL HAD A BURST ON CHANNEL 8 OF A WOMAN READING THE NEWS. DIRECTION, SOUTHWEST. ON THE MORNING OF SUNDAY, DECEMBER 14 HE SAW THE TEST PATTERN SKETCHED AT RIGHT ON CHANNEL 9. THREE BURSTS OF IT WERE SEEN BETWEEN 0630 AND 0638. THE TP IS BASICALLY GREY, WITH A BLACK CENTRE CONTAINING A WHITE 9. ANTENNA WAS FACING SOUTHEAST.



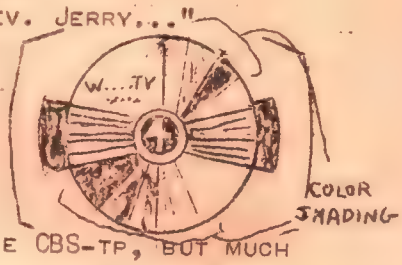

MORRIE GOLDMAN (8046 S. EUCLID AVE., CHICAGO, IL 60617) HAS A LOT OF UNIDED MS:

THURSDAY, DECEMBER 11- (ALL TIMES CST)

0525- 3/4 COLOR BAR PATTERN ON CH. 7 TO SE

0623- RELIGIOUS PROGRAM OF CH. 4 "WITH REV. JERRY..."

0625- UNUSUAL COLOR TP AND TT FROM SW. BURST LASTED OVER 14 SECONDS WITHOUT EVER GETTING STRONG. FIRST LETTER IN CALL APPEARED TO BE A "W". (ALSO NOTED DEC. 13 AT 0620) PATTERN SKETCHED AT RIGHT.





0640- ODD TP ON CH. 4 TO SW. SLIGHTLY LIKE CBS-TP, BUT MUCH SIMPLER. ROUGHLY LIKE PATTERN DRAWN AT LEFT.

0652- NORMAL COLOR TP (WFLD STYLE) W/TT ON 4 SW. BURST LASTED OVER 10 SECONDS BUT AGAIN WEAK AND SMEARY.

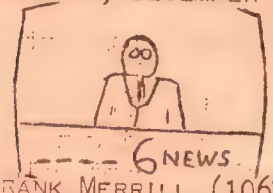
SATURDAY, DECEMBER 13-

0523- NORMAL (WFLD STYLE) COLOR TEST PATTERN W/TT ON CH. 5, EAST.

0523:30- 1 SECOND BURST OF EITHER HOCKEY GAME, ROLLER DERBY OR SIMILAR SPORT EVENT. COULD HAVE BEEN GAME HIGHLIGHT ON NEWS PROGRAM. ON CH. 5 TO EAST.

SUNDAY, DECEMBER 14- 0648- BRIEF BURST OF TEST PATTERN ON CH. 7 TO SE. REVIEWED VIDEOTAPE OF BURST WITH CONFUSING RESULTS. SOMEWHAT RESEMBLES TP USED BY WWNY, WATERTOWN, NY. CAN ANYONE HELP?

TUESDAY, DECEMBER 23 BROUGHT AN EXCELLENT SKIP OPENING AND THESE UNIDS:




0714- CH. 4 TO SOUTHWEST: AD FOR FAIR DEPARTMENT STORE

0728- CH. 6 TO SOUTHWEST: NEWSCAST, SET SKETCHED AT LEFT. OFFSET WOULD INDICATE KRIS. (SET LOOKS LIKE THEIRS, TOO. BH)

0740- CH. 3 TO SOUTHWEST: AD FOR WOOLCO STORE IN PORT ARTHUR

FRANK MERRILL (10673 SALINE-MILAN RD., MILAN, MI 48160):

OCTOBER 6- ON CH. 13, A TEST WITH VERTICAL BARS AROUND 0300-0400 EST FROM E OR ENE. PLUS OFFSET (SAME AS WJZ WHO WAS ALSO TESTING). CKCO, CJOH BOTH DISCLAIM AFTER PHONE CALLS; WGAN SENDS BACK NEGATIVE REPLY. ON CH. 3, A "WEDGE" TYPE TP FROM E OR NE. FIRST NOTED 0615 AND SEEEMED TO GO INTO PROGRAMMING AT 0630. WSYR, WCAX ALL SAY NO. WTIC SAYS YES, BUT DON'T THEY START PROGRAMMING AT 0555 THEIR TIME? (I'VE SEEN THEM BY MS WITH TP LATER THAN THAT. BH)

ATTENTION FM DX-ERS! SEE WHAT YOU CAN DO WITH THESE:

SATURDAY, SEPTEMBER 27 ON 97.3 MHz, 0100-0400 PLUS EDT. OC-AN FROM EAST, BUT WHCU SAYS IT WASN'T THEM AFTER PHONE CALL. DIRECTION SEEMED TOO DIVERGANT FROM WKWK TO BE WMVB OR ANYTHING ELSE.

SEVERAL DATES IN SEPTEMBER AND OCTOBER- 91.9 MHz AS LATE AS 0200 OR SO. UNDERGROUND ROCK MUSIC FROM THE SE, VERY WEAK, NOTED ON LATE SEVERAL SATURDAY NIGHTS. WCWS? WGTS? NEVER STAYS IN FOR ID, SEEMS UNRELATED TO TROPS ACTIVITY AS NOTED ON ONE OR TWO REALLY POOR NIGHTS.

A BELATED MERRY CHRISTMAS AND HAPPY NEW YEAR TO ALL. HOPE YOUR DX IS BETTER THAN EVER IN THE NEW YEAR AND ALL THRU THE SEVENTIES!

73, Bill

* THE PROPAGATION WAND * ++++++++ General DX Conditions Jan.1 - Feb.15
**********

(This column is being prepared on an experimental basis to determine if it is of sufficent value to make it a REGULAR feature in the bull.)

Winter Es Season

As this is being prepared in mid-December, the winter sporadic E season is off to a bad start. Pat Dyer of Texas, our Es statistic expert, reports that a five week-plus stretch was observed through November with No Es at ANY VHF frequency observed - the first time the month of November has passed with NO Es noted since the early 1960's. Seemingly, the poor summer Es season is carrying over through the winter period.

IF (and that's a BIG if) the season makes a late start, there should be some late afternoon - early evening Es activity observed in the southern half of the United States through late January or mid February. February is traditionally a poor Es month, although during the peak of the 1957-59 sun spot cycle, February did provide some very good late afternoon (local time) openings from Florida all the way to California, and south into Mexico. Winter Es tends to repeat itself in 27-28 day cycles; ie. an opening on January 1 will often repeat around January 27-28th.

Tropo (Ground Wave)

Watch for warming trends and fog. Or fog alone. Cold, blustery weather seldom brings good tropo, but a sudden change from cold weather to a warmn snap, or a persistent 40-60 degree temperature range with fog over a wide area is a good indication that good tropo is in the offering. This is especially true in the mid west and east into the Atlantic coastal states. There have been several dandy UHF tropo openings in January-February over the years, built around just these kind of weather conditions.

Auroral Skip

Aurora displays with the possibility of auroral Es across the extreme northern USA and southern Canada are unlikely until late February. However, if there is an aurora display, look for stations 1,000 to 2,000 (plus) miles east and west of you between 7 PM and 11 PM local time on channels 2-4. Signals will fade heavily with smearing, but be quite strong.

Meteor Showers

We are entering a low period of the year for meteor activity (it's a good time to build new, bigger antennas for 1970!). In that vein, congratulations to Carlon Howington on his plans for a 32 element FM array! The only major MS (shower) occured before you could read this- the Quadrantids January 3-5. A minor shower, the Cygnids, is due Jan. 17 peaking 0600 to 1800 LST. Another minor shower, the Aurigids, peaks Feb. 5 to 10 from 1400-1730 (LST) for NW to SE paths and 2130-0100 for SW to NE paths.

Random (non-shower) above average mornings during this period are January 9 (count of 25),12th (count of 26) and Feb. 1st (count of 24).

73!

##########

YOUR WTFDA REGRETS =THE LACK OF AN FM DX AND FCC NEWS AND DATA - FM COLUMN THIS MONTH. STENCILS WERE NOT RECEIVED FROM THE COLUMN EDITORS BY PUBLISHING TIME. BE SURE TO LOOK FOR THESE FEATURES NEXT MONTH.

# FCC NEWS & DATA

GARY A. OLSON, APT.107
5901 W. BROWN DEER RD.
BROWN DEER, WIS. 53223

## TV

STATIONS OPERATING (AS OF DECEMBER 1, 1969)

| | |
|---|---|
| UHF ETV | 105 |
| UHF Com | 181 |
| VHF ETV | 77 |
| VHF Com | 508 |

Total Authorized Stations On The Air 871

New Stations Reported On The Air:

WENY-TV, ch. 36, Elmira, N.Y., 464 kw. - NBC, took the air Nov.19

New Target Dates Reported:

*ch. 11, Edmonton, Alberta (Canada's first ETV) March 2, 1970

WXOW-TV, ch. 19, La Crosse, Wis., 200 kw., January 15, 1970

WHAG-TV, ch. 25, Hagerstown, Md., 725 kw.-NBC, target was Dec. 17

Miscellaneous Changes Reported:

WAPI-TV, ch. 13, Birmingham, Ala., now is full-time NBC affiliate

FCC COMPLETED ACTION

New Grants:

Dothan, Ala., ch. 18 (S. Alabama Broadcasting Co.) 811 kw.

Butte, Mont., ch. 6 (KMSO-TV Inc.) 100 kw.

New Call Letters Issued:

*Hutchinson, Kan., ch. 8, granted KPTS (TV)

Flagstaff, Ariz., ch. 2, granted KOAI (TV)

Other Changes Allowed:

WCFL-TV, ch. 38, Chicago, Ill., ERP to 1260 kw. - ant. to 1250'

WJJY-TV, ch. 14, Jacksonville, Ill., ERP reduced to 275 kw.

WSMW-TV, ch. 27, Worcester, Mass., ERP to 513 kw.

KOMU-TV, ch. 8, Columbia, Mo., ERP to 288 kw.

WAAE-TV, ch. 13, Rochester, N.Y., ant. to 500'

WMGZ (TV) ch. 16, Mayaguez, P.R., ERP to 1.95 kw. - ant. to 1000'

WPSJ (TV) ch. 14, Ponce, P.R., ERP to 813 kw. - ant. to 110'

KRON-TV, ch. 4, San Francisco, Calif., ant. to 1660'

ACTION APPLIED FOR OR REQUESTED

Applications For New Stations:

High Point, N.C., ch. 8 (WEAL Inc.) 316 kw. - Third applicant for this channel occupied by WGHP-TV!!!!!

Columbia, Mo., ch. 17 (ch. Seventeen Inc.) 260 kw.

*Trenton, N.J., ch. 52 (N.J. Public Broadcasting) 1391.9 kw.

Miscellaneous Requests:

WTHS-TV, ch. 2, Miami, Fla., has requested that it be reclassified as a sharetime station with another proposed channel two for Miami.

Alpha Broadcasting Co., Terre Haute, Ind., has requested its grant of ch. 66 be changed to ch. 26

WXON-TV, ch. 62, Detroit, Mich., has requested its channel be changed from current ch. 62 to ch. 20

TIDBITS AND MISCELLANEOUS ITEMS OF INTEREST TO TV DXERS

# The FCC has authorized the assignment of ch. 27 to Columbus, Miss.

# The FCC has denied a request to reassign ch. 10 from Helena to Great Falls, Mont., for use as a satellite

# The FCC is considering changing from 8 to 18 months the amount of time in which UHF and VHF grantees must build their stations

**********

********** FLASH!!!!! **********

**********

Your FCC News and Data TV editor is moving! Gary Olson will be moving to the Chicago area sometime in January, 1970. Address at this time is undetermined. Hopefully this transition will not interrupt the regular appearance of this column. However, FCC News and Data - TV may not appear next month depending upon when relocation takes place.

# DX MAILBAG

P.O. Box 5001
Milwaukee, Wis.
USA 53204

Brightening up the drab winter at WTFDA headquarters was the addition of several new members to the ranks. A hearty welcome goes out to:

Gene DeLorenzo, 35 Sylvan Dr., Hyannis, Mass. 02601
Robert Eddy, Box 123, Newport, Ohio, 45768
Rinaldo Swayne, 9500 Baird Ave., Los Angeles, Calif.,90002
Bob Hawkins, 1515 Marlowe Ave., Cincinnati, Ohio, 45224
Joseph Bradley, Mt. Vernon, Ga.,
Gary Wegner, 1214 N. 11th Ave., Melrose Park, Ill. 60160
Mike Bugaj, 197 Boston Rd., Middleton, Conn., 06457
Bruce Metzner, 733 Huron Hill, Madison, Wis., 53711
Sheldon Swartz, P.O. Box 45, Sharon, Mass., 02067
Christopher Hall, 12 Oakview Ave., Salem, Mass. 01970

Most of these new additions became acquainted with WTFDA through the recent article in Communications Handbook 1970.

Renewals this month include:

Gil Morgan
John Hansen - 2 years

Among the address changes are Pat Dyer to 327 Solar Dr., San Antonio, Tex. 78227; Mike Northam to P.O. Box 1122, Lake Grove, Ore. 97034; and Richard Clark (now a Floridian) to 4110 Bayview Dr., Ft. Lauderdale, Fla. 33308.

Turning to the news, one of America's greatest DXers (and one of our club's nicest guys) Bob Seybold , made the VUD publishers feel about a yard-and-a-half taller recently as he wrote "The few months I have belonged to WTFDA have been terrific. The digest has been great, interesting, informative and it is great to be back in with the gang of DXers". He adds, "Now I am offering my site for next year's convention and any date to suit the majority who could attend is fine with me. If my site is accepted I would appreciate hearing from any who might attend and what time of year is best - then an early decision can be made on the date. I can provide plenty of facilities, lots of room, provisions and set-ups for TV, FM, etc., DX at convention grounds, reasonable rates for eating and sleeping, trip to 'hills', movies, slides, etc. It would be a great thrill for me to hold the convention". (Bob -- WTFDA is more than happy to have your offer. Although New York is not a truly central location for everyone, we usually find that those who really want to make a convention will get there no matter where it is. NOW'S THE TIME! If anyone else would like to offer a convention sit for 1970 please do so within the next thirty days. If there is anyone who objects to the convention being held at Dunkirk, N.Y., - let HQ know. We'd like to get this settled as soon as possible so that the massive planning and preparation which is always involved can be begun as soon as possible).

Joe Gragg is back close to home. Now stationed at Fort Sam Houston Texas, Joe says (in so many words) that service life isn't so bad after all! He fixes army radio equipment for the 4th army and reports his engineering knowledge is in great demandd

Another former AIPAer to hop on the WTFDA bandwagon is Ken Moses. Ken -- at the ripe old age of 29 -- has now accumulated a log of 177 TV stations. He is single and currently a student at Capital Radio Engineering Institute. In addition to TV DX, Ken passes his leisure time with billiards (his #2 hobby - of course).

Ye old editor is a little short on space for this month. So we'll have more musings with the members in February. Keep those cards and letters comin' gents, It helps to warm up a cold winter, Hi!

Conducted by
David T. Janowiak

January
TECHNI/CORNER

3661 South 46 Street
Greenfield, Wisc., 53220

VERTICALLY POLARIZED ANTENNA, AGAIN

After my recent Techni/Corner articles about the use of a vertically polarized antenna for reception of E-skip, I received a few letters asking further about the subject. Also, conversation with a few members at publication time and at the convention produced some interesting side lights, but it was apparent that some remain confused as to what type of antenna to use, how to use it, etc. Rather than note specific questions, I'll just lump this discussion with ideas that should clarify things.

For those who joined WTFDA after the articles, a brief review seems in order. Basically, a conventional antenna, remounted so it is vertically polarized (VP), can be used to improve E-skip reception that is challenged by a strong local on the same, or adjacent, channel. Since US TV stations are horizontally polarized (HP) only, TV antennas are mounted to favor this signal. For popular yagi and log periodic antennas used today, this means an antenna with boom and elements parallel to the ground as it would be if antenna was dropped to the turf. If such an antenna is spun 90° so the elements are perpendicular to the ground; a HP signal "sees" only the one or two inch area of antenna from the front, and very little signal is captured.

NOTE: This also applies to VP signals used by our friends across the pond. However, the repolarized technique is slightly different for them, as I'll discuss later.

TV signals that return to the antenna via the E or F layers, however, are often reshaped so much that their polarization is changed. Usually, a part of the reflected signal is H, some is V, and some is in-between. By remounting an antenna so it favors VP only, the signal strength of a local HP station is reduced greatly, but the VP portion of a skip station is received. Often, a skip station producing only weak offset over a strong local trops station with a HP antenna can be received with weak to fair signal, but no interference from the local, with a VP antenna. What is happening is that the ratio of local to skip station signal strengths is changed drastically, and the skipper dominates.

For TV, the technique can be used as an adjacent channel trap or local trops only station antenuator. For example, skip can be received over a local Ch 4, 5, or 6 as close as 20 miles away. On ch 2 and 3, skip should be received over locals as close as 5 to 10 miles. This, of course, varies with station strengths, and my "numbers" are approximate only. But as an adjacent channel trap, the techniques works well. I have used the VP antenna often to log E-skip on ch 5 that never was more than weak offset with a HP antenna. I have locals on ch 4 & 6 about eight miles away. I have seen skip on ch. 4 with VP antenna only, but quite honestly, have never IDed it.

Several members told of excellent results with the technique, others had limited success; some still are interested, but don't know what expense is involved or what type of antenna to use. The simple fact that <u>some</u> are trying to improve their DX by using techniques discussed in our technical columns or by using tips from some of the "old timers" is heartwarming, since its felt by some that technical articles of this sort are just alot of bunk.

Morrie Goldman, our Convocrmin Chicago, used the VP technique this summer and noted that skip was usually received best with antenna somewhere between HP and VP. You can visualize this by standing in front of a HP antenna aimed at your head (element tips would point to 3 and 9 o'clock) and rotating the ends by 45° (element tips now point to 4:30 and 10:30 or 1:30 and 7:30). I have found it is true also as the skip is almost never completely VP, just as it is almost never completely HP. So mounting an antenna with such a 45° rotation permanently might be a good idea.

But probably the biggest hang up was over shat type of antenna to use. And here there should be no problem as the clear cut choice is that costly animal the <u>dipole</u>. Should cost maybe 25¢ worth of aluminum or 10¢ of T-line.

To be continued next month.

73's

Dave

# EUROPEAN SCENE

ROGER BUNNEY
TRELAWNE, CUPERNHAM LANE
ROMSEY, HANTS, SO5 8JH
ENGLAND

EASTERN EUROPEAN STATIONS USE THE OIRT STANDARDS, EXCEPT EAST GERMANY WHICH USES THE WESTERN CCIR STANDARDS LIKE WEST GERMANY. THE TWO LOWEST CHANNELS ARE 01 AND 02 IN THE LOW BAND AT 48½-56⅛MHz AND 58-66MHz RESPECTIVELY. 625 LINES WITH NEGATIVE GOING VIDEO AND FM AUDIO ARE USED, AS IN MOST OTHER SYSTEMS. THE CHANNEL IS 8MHz WIDE HOWEVER, NOT 7 MHz AS IN THE CCIR SYSTEMS. THE SYSTEM IS OFTEN REFERRED TO AS RUSSIAN BECAUSE OF ITS ORIGIN SO CHANNELS ARE SOMETIMES DESIGNATED BY "R" INSTEAD OF "0". THESE CHANNELS ARE USED FROM CHINA TO CZECHOSLOVAKIA AMONG ALL SOCIALIST COUNTRIES.

RUMANIA HAS TWO LOW BAND STATIONS BUT BACAU ON 01 USES ONLY 3KW AND IS VERY RARELY SEEN ON SKIP. BUCHARESTI ON 02 HOWEVER HAS AN ERP OF 100KW. THE USUAL TESTCARD IS SIMILAR TO THE RUSSIAN "0249" BUT CARRIES THE ID "BUCHARESTI, STUDIONEL DE TELEVIZIENE" IN THE LOWER HALF OF THE CIRCLE. THE "0249" IS OMITTED. DURING 1966, BUCHARESTI WAS ALSO SEEN USING ANOTHER TYPE OF CARD AT TIMES; THIS HAD A CENTER CIRCLE MOUNTED WITHIN A HEXAGON. INSIDE THE CIRCLE IS "TELEVIZIUNER ROMANA."

TEST TRANSMISSIONS COMMENCE IN LATE MORNING AND CONTINUE UNTIL ABOUT 10 MINUTES PRIOR TO PROGRAMMING WHEN THE LATTER CARD IS USED. THERES NO PROGRAMS ON MONDAY AS LIKE HUNGARY THEY USE THIS DAY FOR MAINTENANCE PURPOSES. SUNDAY PROGRAMS ARE RADIATED 0900-1300 AND 1800-2300. TUESDAY THRU SATURDAY'S PROGRAMMING IS ON 1800-2300.

CZECHOSLOVAKIA HAS A VERY DISTINCTIVE TESTCARD ALSO, WHICH HAS APPEARED IN THE VUD. SOMETIMES THIS CARD MAY CARRY A STATION ID IN SMALL LETTERS AT THE BOTTOM, VERY DIFFICULT TO READ UNLESS THE SIGNAL IS VERY STRONG AND CLEAR. SOMETIMES A TEST GRID MAY BE SUPERIMPOSED OVER THE CARD AS WELL. THE CSR CARD IS RADIATED FROM MORNINGS UNTIL THE COMMENCEMENT OF PROGRAMMING, OR AT TIMES IT MAY BE REPLACED BY A LINE SAWTOOTH.

CESKOSLOVENSKO TELEVIZE HAS 5 LOW BAND STATIONS:

| | | | | |
|---|---|---|---|---|
| STREDNI CECHY/PRAHA | CH. 01 | 30KW | CENTRAL | PROGRAMMING: |
| SEVERNI MORAVA | 01 | 10KW | NORTH | SOME MORNINGS AT 0830-1200. |
| CESKE BUDEJOVICE | 02 | 100KW | | |
| JIZNI CECHY | 02 | 10KW | SOUTH | WEEKDAYS 1600-2300 APPROXIMATELY. |
| ZAPADNI SLOVENSKO/ BRATISLAVA | 02 | 10KW | WEST | WEEKENDS: 0900-1230, 1530-2300. |

HUNGARY HAS ONLY TWO XMTTRS IN BAND 1: BUDAPEST 01 30KW
PECS 02 1KW

THE TESTCARD USED IS THE RETMA WITH NO ID. THERE IS CONSIDERABLE CONFUSION BECAUSE IT IS EXACTLY THE SAME CARD AS POLAND USES. THE NUMBERS IN THE CORNER CIRCLES MAY BE BLACK OR WHITE, BUT BOTH COUNTRIES USE BOTH CARDS SO THIS IS STILL NO MEANS TO ID. THE ONLY POSITIVE WAY TO ID THE STATION IS IF IT IS FOLLOWED BY A CAPTION FOLLOWING THE BEGINNING OF PROGRAMMING. IF THE CARD IS SEEN ON 02 IT IS MOST LIKELY POLAND BECAUSE OF THE LOW POWER OF THE PECS XMTTR. TEST TRANSMISSIONS COMMENCE ABOUT 0900 UP UNTIL PROGRAMMING BEGINS. THERE ARE NO PROGRAMNS ON MONDAY DUE TO MAINTENANCE. SUNDAY PROGRAMS: 0903-1300 AND 1553-2100. SATURDAYS: 1633-2300. TUES THRU FRI: 1758-2230. MAGYAR RADIO ES TELEVIZIO (OFTEN ABBREVIATED MT) HAS A CONSIDERABLE NUMBER OR PROGRAMS PRODUCED IN THE EAST LIKE CZECHOSLOVAKIA, HOWEVER, CZECHOSLOVAKIA DOES HAVE MANY FILMS OF AMERICAN ORIGIN AS WELL, AT LEAST THEY DID BEFORE THE AUGUST, 1968 OCCURRENCES.

POLAND OPERATES TWO STATIONS IN BAND 1 OF SUFFICIENT POWER TO INTEREST US:
BYDGOSZCZ 01 200KW. JEMIOLOW(WARSZAWA) 02 90KW.
TEST TRANSMISSIONS USING MAINLY THE RETMA CARD COMMENCE FROM ABOUT 0900 AND CONTINUE UNTIL 5 MINUTES PRIOR TO THE BEGINNING OF PROGRAMMING WHEN A CAPTION "TELEWIZJA WARSZAWA" APPEARS, FEATURING THE COAT OF ARMS OF WARSAW, A WOMAN HOLDING A SWORD AND SHIELD. PROGRAMS BEGIN AT 0900-1130, AND 1700-2300 ON WEEKDAYS. ON WEEKENDS PROGRAMS START IN EARLY AFTERNOON. AT THE CONCLUSION OF PROGRAMS A BLACK EAGLE IS SHOWN (?)
(PUBLISHER'S NOTE: THE SYMBOL OF POLAND IS A GREAT WHITE EAGLE. GERMANY USES BLACK ONE.)
IN 1969, A NEW 1000 FT MAST IS TO BE CONSTRUCTED 15KM FROM WARSAW; ERP OF THIS STATION IS ALSO TO BE DOUBLED.

---END OF SERIES---

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